THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLIII. SATURDAY, JULY 7, 1883. NO. 1.

ORIGINAL LECTURES.

MALIGNANT TUMOR OF THE UPPER JAW AND CYSTIC TUMOR OF THE NECK.

A Clinical Lecture, delivered at the City Hospital, Charleston, S. C.

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(Reported by JOHN L. DAWSON, JR.)

GENTLEMEN: I bring before you this morning two cases of much interest. One, this middle-aged colored man, with a tumor of the upper jaw; the other, this young white man with a tumor of the neck, sent to me as a probable case of "aneurism of the carotid."

The first patient, I saw for the first time just before coming into this room, having been stopped on my way here by one of my colleagues, and asked to give an opinion as to the propriety of an operation for the relief of the sufferer. This man comes here from a distant part of the State, and is willing to submit to any surgical operation that may be deemed advisable.

You notice the enlargement of the upper jaw on the right side, and see the two fistulous openings in the soft parts discharging a thin pus. The soft parts of the cheek, integument and all, are fixed to the bone, and cannot be made to glide over it, as is usual in the healthy condition. Let us look into the mouth, first, I see that the teeth of the jaw on this side are gone. The man says that these loosened and dropped out one by one. This is ever a suspicious circumstance in connection with tumors or diseases of the jaws, and indicates serious if not malignant disease. Such disease often begins in one of the alveolar cavities, but may start elsewhere, as between the outer and inner lamina of the bone, or in the antrum, and finally involve the alveolar border as well.

In this case the mass of bone is assuredly implicated; it is no simple tumor of the soft parts. Upon further examination, it is seen that the bone expansion is more marked towards the cavity of the mouth, and that the tissues composing the roof of the mouth are thoroughly involved. The mucous membrane of this region is granular, thickened, and ulcerated. Pressing the bone, or the tumor, between the fingers that I have within the mouth and those upon the outer side resting upon the cheek, I note that the force is communicated from within to the outer side, or from without to within. The solid bony tissue has, for the most part, disappeared, or been substituted by soft, diseased tissue which makes up the bulk of the neoplasm, or new growth. The bone has literally been fed upon and thus consumed. At points, however, there are portions of bone remaining which crack under pressure. Trace the growth backward, with the finger in the mouth, and we find it goes beyond the palate bone toward the pharynx and the base of the skull. We realize that we have to deal with an extensive and a most destructive growth, involving alike bone and soft parts that are connected more or less intimately with vital portions of the organism. Wherever it began, it has been long infiltrating adjacent structures, and promises still further to extend its ravages by a forced, unnatural union with the elements of all the tissues. Secondary and inflammatory changes also further the processes of development of the original growth. Such are what we may in part call malignant features of the disease. At present we can perceive no general infection, but such must soon follow, and the vital fabric must finally yield to the fearful ravages that, I fear, neither surgery nor medicine can arrest. Need I name to you this disease? Practically, we can call it a malignant tumor of the jaw. Perhaps it is entitled to be called cancer or carcinoma. Perhaps, and I think more likely, for reasons which I cannot now, for want of time, fully explain, it may be regarded as a sarcoma. Clinically, there is but little difference between some disease differently named, and, in the case before us, with the progress that has been made, and the destructive changes that have resulted, a pathological argument or demonstration will not very much aid the surgery for the occasion. I hope to explain this to you more fully hereafter.

We often have sarcomata of the jaws amenable to treatment. But in regard to this case of disease, I hesitate not to tell you that in my belief, surgery is powerless. I cannot sanction an operation here. By no operation, however bold, or however skilful, could we expect to insure the removal of all the infiltrated morbid elements. A removal of all apparently diseased structures is not sufficient in such cases. You must go far and wide of the disease, and seldom do we know certainly when we have gone far enough. Operations in such cases as this bring only discredit upon surgery. There may be a chance for bold operating, for an exhibition of skill as a dissector. To be able to say how extensive have been incisions, how numerous the vessels divided and tied, how vital the parts exposed, seems, from reports of cases we see in journals, to be the aim and satisfaction of some operators. These men do not represent surgery. I beg you not to be captivated by their examples or teaching. I will then, for reasons that you must appreciate, advise that this poor man be left to his fate, with the simple comfort that can come of judicious palliative treatment. We may assuage his suffering; we cannot save, and can hardly prolong his life.

This other case is a very different one. You see we have here a tumor of the right side of the neck, below the larynx, and over the course of the carotid artery. The case was sent to me as probably one of *carotid aneurism* by a medical friend in the interior of the State. The tumor is spherical, as large as an orange, tense, and, as I think, fluctuating to the touch. It is said to have been developing for two years, and not to have given pain, *mark you*, until three weeks ago, when there began a "dull aching," which has continued up to this time. My medical friend who saw the case in its incipiency thought there was then an obscure pulsation in the swelling.

The position of the tumor is one where aneurism is at times found. We may have many other forms of morbid growth in the same site. Glandular tumors in this region are common. Fibroid, or fibro-cellular, tumors also occur here, and at times it is possible that such growths may receive a pulsatory movement from their proximity to the main artery of the neck. Besides these we have, more rarely, cystic or fluid tumors in this location. We hear such, at times, called "hydroceles" of the neck.

The origin of such cysts is obscure. They may begin *de novo*—there being no natural cyst to develop into a tumor—in the loose connective tissue of the region and

grow to an enormous size, the tumor finally hanging down over the sternum. The growth before us, from its shape, elasticity and fluctuating feel, I decide to be a liquid and not a solid tumor. The most careful examination fails to connect with it any pulsation. Pressure upon the carotid at the sterno-clavicular junction in no way affects the size of the swelling. It is therefore not an aneurism. I exclude the solid growths at times met with here, and I think I can also exclude the idea of malignancy. We have, in other words, to deal neither with a cancer nor a sarcoma.

The appearance of the patient, the time the tumor has been growing, the non-infiltrating character of the disease, all sustain this conclusion.

Cystic or fluid tumors, however, I must not forget to tell you, are not always simple or benign. There may be within, connected with the sack, a cancerous or a sarcomatous element. But I will not wander so far as to consider such a matter now.

One point more: an abscess, as you know, is a kind of fluid tumor, and we must not fail to consider the question of abscess in connection with the case before us. The growth of two years, and the absence of all signs of acute action at present might permit us to exclude abscess as we have done certain kinds of tumors. Chronic abscesses, however, often exist a long time without appreciable inflammatory symptoms. Such are, however, seldom found precisely in this region without being connected with glandular or with spinal disease. There are no evidences of such connection with the tumor before us. If originally there was a glandular swelling, this has disappeared by disintegration. But to consider one feature in the case before alluded to; there has been *pain for several weeks*, and since the commencement of this acute symptom, the tumor has become more tense, or, as the patient thinks, "has grown more rapidly." Without an external trace of inflammation, pus may form within a cyst. You see, gentlemen, that the question of diagnosis, although not certainly fixed, is narrowed down very decidedly. I come to the question of the *contents* of the cyst, or the fluid tumor. Fortunately, we have a means of absolutely determining this matter. We can explore or aspirate almost any morbid growth, and with but little risk to the patient. We can abstract the contents of a fluid tumor and examine the material to render certain a diagnosis. This is what I will now do before you.

This little instrument, the hypodermic syringe, answers the purpose very well in such a case. I plunge the delicate needle, or trocar, into the centre of the swelling, as you see, and then retract the piston. The glass barrel of the little syringe slowly fills with a turbid, viscid liquid as I proceed. This is sufficient. I withdraw the needle, and finish the little operation. To be certain, we might subject the liquid to microscopical examination, but this is scarcely necessary for my present purpose. The fluid is evidently sero-purulent in character. The pus is in small quantity. We have no simple abscess of either the acute or chronic form. The fluid withdrawn substantiates this opinion. What is next to be done to relieve the patient? This is at last the most practical, because the vital question; we must empty the cyst, which I will now do by a free incision, and then make use of means for destroying its secreting surface, so as to make it fill up and heal like an abscess. You see how my free incision permits the escape of pus, together with the viscid glairy matter, and some little blood. We will now wash out the cavity with a weak iodine solution (℥j of the tinct. of iodine to ℥vj of water), then put in a drainage-tube, and cover the neck with a layer or two of borated cotton, secured in place by a bandage. The object of the iodine is twofold: it is antiseptic and also a good stimulant to rouse up the action of the cyst wall and effectually change the character of the secreting surface. We will expect to keep the cavity aseptic, by repeated injections of iodine solution, and hope that the boy will recover.

I cannot explain to you the origin of this disease; my finger passed to the bottom of the cavity, failed to discover any trace of a solid growth, glandular or otherwise. The sac evidently extends deep into the tissues of the neck and is in close relation to the important vessels.

[This patient made a good recovery, and returned home three weeks after the operation.]

ORIGINAL ARTICLES.

A CASE OF MULTIPLE FRACTURE.

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THE following case is reported as being one of unusual occurrence, and also on account of certain peculiarities, which may be stated as follows: First, the number and gravity of the injuries; second, the course of treatment adopted; and, third, the result.

In regard to the first, the multiplicity of the fractures, it is very rare to meet with this condition, as a result of traumatism not complicated with some constitutional diathesis. Most of the cases reported by authors have occurred in patients who, at the time of accident, were suffering from cancer, syphilis, rickets, gout, or other constitutional disease, and which are known to be predisposing causes; but in the case here related, there were no existing cause or causes as far as could be ascertained. The fractures were the result of uncomplicated traumatism.

The second point—the treatment—is seen to be one of conservative surgery, and also one in which antiseptics were employed as auxiliaries. That the latter were the principal and only reason for the successful termination I am not prepared to decide; but it does seem to me that the result was, in a measure, determined by this method of treatment. When the course of similar injuries, treated by a non-antiseptic method, is contrasted with this case, it would appear that it is an exception to the general rule, and it is not unreasonable to suppose that the possibility of the favorable termination was somewhat influenced by the antiseptic treatment.

Finally, the result—this was unexpectedly very satisfactory, and may, I think, be attributed in part to the patient herself, who was of a decidedly phlegmatic temperament, and never lost hope, but, from the beginning, was firmly determined upon recovery; in part, to the method of treatment adopted; and, in part, to the unremitting care and attention of Dr. Edward S. McIlvaine, the resident of the surgical ward, under whose charge the patient was placed.

Louisa M., aged 29 years, was admitted into the hospital on the evening of September 19, 1882. Two hours previous to her admittance, she had jumped from the third-story window of her dwelling. I saw her early the following morning, and an examination of her injuries was made. There were two simple fractures of the inferior maxillary

bone—one situated at the ramus, the other at the symphysis; a simple oblique fracture at the middle third of the left femur; a compound comminuted fracture at the lower fourth of the right femur; contusions of the skin over both knees and on the arms; the right knee-joint was much swollen, the effusion being within the capsule of the joint, and very distinctly floated the patella. On account of this swelling of the joint, it was difficult to ascertain the exact condition of the bones constituting it, but it was thought that there was an intercondyloid fracture of the femur communicating with the cavity of the joint. The wound of the thigh was about one and a half inches long, located at the outer side of the thigh, on a line and two inches above the outer condyle of the femur. Upon passing the finger into this wound, it came in contact with the shattered bone, a fragment of which was found separated from the shaft, and lying in the lacerated muscular tissue.

The general condition of the woman was remarkably favorable; there had been very slight, if any, shock; the temperature was 100° F.; the pulse about normal; she had complained but little of pain; even while undergoing the examination necessary to determine the extent of her injuries, she apparently suffered very little, and certainly did not realize the gravity of her condition. From my examination of the injuries, and the state of the patient, the following treatment was decided upon:

The fractures of the inferior maxillary bone were in very good position, and a Barton's head-bandage was applied, which admirably fulfilled very indication for the treatment of this injury.

The simple fracture of the left femur was dressed by extension, and a large sand-bag placed at the outside of the limb, extending from above the crest of the ilium to below the foot. The extension was obtained by means of two broad strips of adhesive plaster—one placed on the external and one on the internal surface of the limb—they were secured by transverse strips, and reached from the upper extremity of the lower fragment of the fractured femur to two inches below the foot, over which was applied a spiral-reverse roller; a piece of splint board, wide enough to prevent pressure upon the malleoli by the adhesive plaster, was attached to the lower end of the strips of plaster. A cord having a weight attached to it was fastened to the board, and passed over a pulley at the end of the bed. The counter-extension was obtained by elevating the foot of the bed.

The treatment of the injury to the right limb was the most difficult to decide. There was a compound comminuted fracture of the shaft of the femur, and also, possibly, an intercondyloid fracture communicating with the knee-joint; effusion into the joint cavity was undoubtedly present. A careful examination of the circulation and temperature of the leg showed nothing abnormal. The general condition of the patient, as previously mentioned, was remarkably good, and, notwithstanding the great gravity of the injury, I thought, with unusual care and attention, an operation might be avoided, at least for the present, since, with her other injuries, an amputation would, in all probability, prove the straw too much.

The examination had shown that a portion of the fractured femur was detached and lying loosely in the muscles; this could only act as a source of irritation, and it was thought best to remove it. In order to do this, the wound was enlarged, under the carbolic spray, and the fragment of bone removed. The piece of bone, when removed, proved to be much larger than was anticipated; it measured three inches in length, and included about half the circumference of the femur. It was entirely denuded of periosteum, and from that portion of the shaft of the bone, just above where it begins to expand into the condyloid eminence. The wound was then thoroughly washed with a watery solution of carbolic acid, using a syringe to force the solution into all parts of the wound; a folded piece of lint, saturated with carbolized water, which covered the wound and upper surfaces of the thigh and knee-joint, was then applied. To prevent all motion, as far as possible, the limb was placed on pillows in a long fracture-box, which reached from the perineum to below the foot, the lower part being elevated to form an inclined plane. An irrigating apparatus was then arranged, so that the piece of lint, covering the thigh and wound, was kept constantly wet with the carbolized water. This completed the dressings, and the patient stated she felt as comfortable as possible under the circumstances; indeed she was soon asleep.

The day following I found the patient had developed no unfavorable symptom; she was in good spirits, and more resigned to her confined position. In consultation with my colleague, Dr. Nancrede, it was concluded advisable to let well enough alone, and, therefore, the same treatment was continued. On September the 19th, the third day after the accident, it was found necessary to make some change in the manner of applying the carbolized water. It was not possible, on account of the other injuries, so to arrange the irrigation, in order to prevent the water from passing under the patient's back, and being a constant source of annoyance to her. To avoid this difficulty, the irrigating apparatus was removed, and in its place the folded lint, covering the thigh and wound, was wet every fifteen or twenty minutes with the carbolized water.

The above treatment, without any change whatever, was continued for twenty days. During all this time there were no unfavorable symptoms; the effusion in the knee-joint gradually disappeared; no pus was discharged from the wound, nor were there any collections in the tissues around the injury. A very small amount of a lemon-colored fluid, just enough to stain the lint in immediate contact with the wound, was all the discharge ever observed. The pain at no time was so severe as to require anodynes; occasionally, at night, a small dose of sulphate of morphia was administered to relieve restlessness. The appetite remained good—in fact, she complained of being hungry, not relishing the liquid diet necessitated by the fractures of the jaw.

My term of service at the hospital having expired, the patient was taken charge of by Dr.

Packard, and I have since ascertained that there was an uninterrupted course of improvement until she left the hospital on December 11, 1883. At the present time, seven months after receiving the injuries, she has so far recovered as to be able to perform her house duties, and to walk without pain or difficulty. A slight stiffness of the right knee-joint is the only remaining lesion of her injuries.

VLEMINCKX'S SOLUTION IN ACNE ROSACEA.

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THE condition known as acne rosacea, or rosacea, is so obstinate in its nature that in many instances almost every remedy is barren of any marked or permanent result. What will prove useful in a certain proportion of cases, will be of little avail, or even absolutely valueless, in others. The importance, then, of having at command a large choice of remedies is evident. Remedies are referred to here in the sense of local application only, as it is generally by such means alone that any good is obtained. Internal medication is rarely of advantage, and is seldom called for, except to correct faulty conditions in the general health that may be present. The use of Vleminckx's solution in this affection is not original with myself, as it has been, to my knowledge, so used by Dr. Duhring and Dr. Van Harlingen, as well as by other dermatologists. This application of it is, however, but little known to the general profession, and it is for the purpose of calling further attention to its value that the present communication is written.

The solution is made by adding one part of lime and two parts of sublimed sulphur, or flowers of sulphur, to twenty parts of water. This is boiled down to about twelve parts, cooled, and then filtered. The result is a dark, orange-yellow colored liquid, with a strong odor of sulphuretted hydrogen. This is to be diluted as circumstances require. A brief description of a few cases will illustrate its value and mode of application.

CASE I.—Albert B., a druggist, aged 19, applied at the Philadelphia Dispensary for Skin Diseases, January 2, 1882. The nose was erythematous, and, with the surrounding parts, presented a few acne pustules and numerous comedones. Health was fair, with occasional attacks of indigestion. He was ordered to make applications of hot water to the parts at bedtime, subsequently press out as many comedones as possible, and then apply for several minutes a lotion made up of one part of Vleminckx's solution to five of water. In addition, he was prescribed an aperient mixture to be used when required. He returned at intervals of ten days, and the proportion of Vleminckx's solution was gradually increased to one part to three. Improvement ensued from the start, and at the end of two months the patient was so well satisfied that he ceased his visits.

CASE II.—Morris F., peddler, aged 40, applied at Philadelphia Dispensary for Skin Diseases, February 2, 1882. Nose and immediate neighborhood and forehead near middle were markedly erythematous, and presented a number of small acne papules and pustules. About the nose the capillaries were enlarged. Had indulged some years previously in alcoholic excess, but during the past few years had been temperate. Disease had existed three years. General health good. An aperient was ordered to be used occasionally, and at bedtime to apply, for several minutes, a lotion of one part of Vleminckx's solution to four of water. Patient returned in three weeks somewhat improved. Strength of lotion was gradually increased to one part to three. From this time on, patient continued to improve steadily, without further increasing strength of wash. At each visit, the larger capillaries were incised. Last visit was made April 24, about three months after beginning treatment. Patient was well satisfied with the improvement in his appearance, and, although not absolutely well, failed to return.

CASE III.—Jane M., aged 36, domestic, presented herself for treatment at the service of the Northern Dispensary, March 11, 1882. Chin, nose, and middle of forehead dull red, and covered irregularly with acne pustules; enlarged capillaries about nose. Health was good, and the functions well performed, except that there were occasional attacks of indigestion. An aperient tonic mixture was ordered for the dyspeptic symptoms, and a lotion of one part of Vleminckx's solution to five of water, to be applied for several minutes every evening. Patient returned three weeks later, and condition had much improved; same was continued. At end of two weeks, patient again appeared, and marked improvement was noted. The acne had almost entirely disappeared, and the rosacea was less marked. The larger vessels were incised. Lotion was increased one part to four, and later, one to three. Improvement continued, and three months after her first visit, patient was completely rid of her trouble.

Examples such as are just cited, might be multiplied, as the disease is a rather common one at the dispensaries, and the record-books contain a number of such cases, showing the value of this remedy, and I may here add, also a proportion of failures. In some cases, it is necessary to gradually increase the strength of the lotion, even up to the pure solution. This is, however, rare. The strengths as given in the above cases are generally sufficient. At times it is well to intermit treatment for a few days, in order that the desquamation it usually causes may disappear. The milder strengths cause very little desquamation, and, in moderate cases, are sufficiently efficacious. Occasionally, especially in the more obstinate cases, the lotion may be advantageously made stronger. In most cases, the improvement would be more rapid were the lotion applied twice daily, night and morning. It is difficult, however, to get patients to make applications early in the day, on account of personal appearance. The severe forms of the disease, those in which hypertrophy is a marked feature, are comparatively rare, and as yet I have had no opportunity of testing the solution in such cases. It

would probably be of little value, as the disease, when so advanced, is rarely benefited by any treatment, except those plans in which operative measures figure prominently.

Even in the moderate forms, some cases fail to respond to the application of the solution, and other treatment must be instituted, in order to secure improvement.

Vleminckx's solution is not, therefore, in any sense, a specific—far from it. It frequently fails and disappoints. Upon the whole, however, according to my experience, it is, for the milder forms of the affection, the most reliable single remedy.

MEDICAL PROGRESS.

GALVANISM IN NERVOUS CEPHALALGIA AND HEMICRANIA.—DR. GASPARINI has successfully employed galvanism of the cervical sympathetic in cases of nervous headache and hemicrania. These cases, as a rule, present symptoms of indigestion, and in many cases malnutrition. After a short course of treatment the patients, in most of the cases, regained their digestive powers, nutrition was improved, and the head symptoms ceased.—*Gaz. degli Ospitali*, May 30, 1883.

PERIODIC RECURRENT PARALYSIS OF OCULAR MUSCLES.—A remarkable case of paralysis of the ocular muscles, coming and going every month simultaneously with the appearance and disappearance of the catamenia, has been recorded by VON HASNER (*Centralblatt für klin. Med.*, No. 21). It occurred in a girl aged seventeen years, of good physique, who had suffered since her thirteenth year from ptosis of the left upper eyelid, which set in every month, lasted three days, and was accompanied at its commencement by headache and vomiting. Menstruation began at the age of fifteen years, when it was observed that this coincided with the monthly ptosis of the left eye. The author had the opportunity of seeing the patient at the onset of one of her periods, and then made out total palsy of the muscles of the left eye; the second day of the menstrual period witnessed a regression of the paralysis of the left eyelid, of the headache, and vomiting. With the cessation of the menses on the third day, a gradual restoration of the movements of the eye took place, the pupil remaining dilated a little while longer.—*Med. Times and Gaz.*, June 9, 1883.

MALARIAL LARYNGITIS.—DR. E. BRIAND having seen certain cases of false croup of no other than malarial origin, concludes that: 1. There exists a form of laryngitis due to malaria, characterized by congestion of the larynx, giving rise, from a symptomatic point of view, to the functional signs of true croup. 2. This variety of laryngitis differs from laryngismus stridulus by the symptoms, course, and prognosis, and generally yields to treatment by sulphate of quinine. 3. It is not very rare in infants, and may be recognized by the fact that it is preceded or followed by malarial manifestations.—*Revue Mèd. Franç. et Étrang.*, May 26, 1883.

THE INTERNAL EMPLOYMENT OF GLYCERINE.—In a recent *thèse de Paris*, M. TISNE (*Journal de Thérapeutique*, April 25) gives an account of the results of the employment of glycerine by Drs. Jaccoud and Ferrand. The former prescribes it as a stimulant to the digestive organs in the non-febrile stage of phthisis, when for any reason cod-liver oil ceases to be tolerated. The following mixture is given daily in two or three doses: Glycerine, forty; and rum or cognac, ten grammes; with one drop of essence of mint. This aromatized alcoholized compound, of agreeable flavor, is well tolerated by the stomach, and even after long uninterrupted employment it causes neither satiety nor disgust. The addition of the rum or brandy has simply in view the modification of the insipid taste of the glycerine, and to assist its digestion. The amount of glycerine may be raised to fifty or sixty grammes, but only in persons who do not exhibit any sign of abnormal excitability of the heart or nervous system; and restlessness, unusual loquacity, obstinate insomnia, or an increase of temperature announce that the proper dose has been exceeded. Dr. Ferrand makes daily use of glycerine in his wards at the Laennec, and it is found to be readily absorbed, without producing any toxical effects. It diminishes constipation in almost all cases, and yet moderates diarrhœa when this is present; and under its use sleep becomes calmer. It has an evident effect on nutrition, its employment in most cases leading to an increase in weight after the first fortnight. In tuberculous cases it induces a considerable amendment in the functional manifestations of the disease, such as dyspnœa, cough, and sweating. The expectoration is the symptom which is least influenced. The local condition of the lung also remains stationary, and the physical signs undergo no change. The action of glycerine on the liver is exhibited by the increase of its size and by the more abundant flow of bile. With respect to its action on the kidneys, there are observed a more abundant diuresis and an absolute and relative increase of urea, the chlorides and phosphates eliminated by the urine. In affections of the genito-urinary organs, M. Tisne has found that under the use of glycerine the alkalescence of the urine seems to diminish, while purulence, when present, becomes considerably lessened.—*Medical Times and Gazette*, June 16, 1883.

ACTION OF MIXED VAPOR OF CHLOROFORM AND AIR.—PROF. PAUL BERT has shown that ʒijss of chloroform vaporized in one quart of air will anæsthetize a dog; ʒvj of chloroform in a quart of air will kill the dog. Wishing to know if the same effects would be produced in case the experiment is continued for several hours, by a particular arrangement he was enabled to protract the experiment during ten consecutive hours. ʒss of chloroform vaporized in a quart of air produces no appreciable result; ʒj in one quart of air was respired without trouble, and with no diminution of sensibility, but there was a decrease of temperature amounting to four or five degres.; ʒjss to ʒij in the same quantity of air produced great diminution of sensibility, but was only manifested after a considerable time; the temperature fell rapidly, and after seven hours of the experiment the animal died with a very low temperature.

The temperature was always lowered in proportion to the duration of the experiment. In some cases the temperature was lowered and death took place before anæsthesia was produced. In these cases, depression of the nervous system was not the cause of death. In whatever manner death is produced, the heart always beats to the end. Chloroform does not act, then, upon the heart. Chloroform should be given intermittingly, and animals which have sustained a loss of blood are much more sensible to it, and much more likely to die under it than otherwise; and the safest procedure is to cause anæsthesia rapidly, and then give in small and intermittent doses.—*Journ. de Mèd. de Paris*, May 26, 1883.

CONTAGION OF MEASLES.—DR. A. BECLÈRA has made a careful study of the conditions attending the contagion of measles, from which we select his more important conclusions.

Rubeola is contagious from the commencement of the period of invasion to the end of the stage of eruption, a period extending through from eight to ten days. The contagious principle is contained in the secretion of the respiratory mucous membrane, and it still remains to be proved that it has anything to do with the cutaneous desquamation. Although this contagion is diffusible, it is so only to a slight extent, and soon looses its active properties, and does not remain in the rooms occupied by the sick. The period of incubation lasts from thirteen to fifteen days; no immunity is conferrred by the presence of any other eruptive disease. —*Practitioner*, June, 1883.

IDIOPATHIC CRAMP OF THE TONGUE AND CREMASTERS.—BERGER states that cramps localized in the tongue alone are so rarely met with that their existence has been doubted. He describes two cases, however, where this condition was well marked. In both there was bilateral clonic spasm of the protrusors of the tongue. Reflex cremasteric spasms are not rare. But in two cases he observed the spasm was clearly idiopathic. It occurred both by day and by night, each attack lasting two or three minutes; the pain was very great. In one case atropia injections were successful; but failed in the other, where galvanization (from the spine to the scrotum) afforded complete relief.—*Brain*, April, 1883.

EXTIRPATION OF THE SPLEEN.—ALBERT BLUM gives a tabulated list of splenectomies for wound or hernia of that viscus, dating from 1581 to 1874, all the patients having recovered. To this is added Credé's list of thirty cases of removal for splenic tumor, from 1549 to 1874, with six recoveries. In the latter table every patient who had leucæmia died. Of the recoveries, two were cases of cyst, and four of hypertrophy of the spleen. Extirpation of the spleen, as shown by Credé, Martin, Czerny, and others, is always followed by an increase in the number of white-blood globules, a fact which confirms the physiological theory that the office of the spleen is to transform the white globules into red. After a time, however, the white globules return to the normal proportion, the thyroid gland seeming to take upon itself the functions of the spleen.

Blum draws the following conclusion: 1. When there is a hernia of the spleen, due to a wound, the surgeon is authorized in cutting off the hernial protrusion. All the observations regarding this operation show its benignity and its termination by recovery. 2. Extirpation is contra-indicated in cancer or hypertrophy, either from hepatic or paludal causes. The results of operation in these cases are very bad. 3. Cysts of the spleen are curable by easier and less dangerous means than extirpation of the organ. 4. Extirpation may be indicated in cases of movable spleen if the accidents are serious. In these cases it is relatively easy. 5. It may be affirmed to-day that splenectomy is practicable in man without altering the conditions of health; the operation is only exceptionally indicated. It is difficult to bring it to a safe termination, and there are great chances that it may terminate rapidly in death either by hemorrhage or shock.—*Archives Gén. de Méd.*, June, 1883.

THE BREAD-PILL CURE OF HYSTERIA.—MM. LANDOUZY and BALLET, in the *Revue Mensuelle de Médecine*, give the history of an hysterical patient to which it is well to give an extended publicity, not because it presents any novel feature, but as a proof of the scientific errors of those ill-trained minds which attribute the cure of hysteria to supernatural influences. An hysterical patient, twenty-six years of age, who had previously suffered from chorea, was received in the wards of the Charité. There was very marked contraction of the lower limbs, and the patient was unable to execute the slightest movement, not being even able to raise herself in bed. After one or two hypodermic injections of morphia, given at her express desire, she was told that she should have a more energetic remedy, and must use it cautiously. On October 7th, bread-pills were prescribed, and the next morning she related that, wishing to poison herself, she had swallowed the pills: at once the effect was terrible, but soon after she was able to walk a little, and eagerly asked to have another pill; this was accorded, and resulted in her complete recovery. Two days later she helped to clean the wards. In a month's time, she left the hospital.—*British Med. Journal*, May 12, 1883.

THE "SHOULDER-ARM" TYPE OF PARALYSIS.—ERB has shown that in many subjects there is a motor point above the clavicle, opposite the transverse process of the sixth cervical vertebra (corresponding anatomically with the cord formed by the fifth and sixth cervical roots), at which faradization brings about contraction of the infra-spinatus, deltoid, biceps, brachialis internus, and supinator longus chiefly, as well as sensations over the shoulder, and parts innervated by the median. On the other hand, a number of cases of atrophic paralysis have been described in which these very muscles were implicated. Hence it was conciuded that in such cases either the gray matter giving origin to the motor roots, or the motor roots themselves of the fifth and sixth cervical nerves were the seat of the lesion. Vierordt describes a case which lends considerable support to this localization of spinal influence. A man after an explosion was found to have received certain injuries. Among other symptoms was considerable swelling above the left clavicle, with loss of power in the corresponding arm. Four months afterwards he was found on examination to have several muscles atrophied and paralyzed, viz., the deltoid, infraspinatus, teres minor, subscapularis, biceps, brachialis, supinators. They all gave degenerative reactions to electrical stimuli. Sensation was abolished over the deltoid; much diminished about the clavicle; diminished over the median area of the hand. Faradization at Erb's motor point on the right side produced contractions of the muscles corresponding to those paralyzed on the left side.—*Brain*, April, 1883.

ATROPINE IN EPILEPSY.—DR. MAX WEISS gives very complete details of two cases of epilepsy, in the first of which (patient æt. 16) he used a solution of sulphate of atropine gr. ⅓ to ½ in f℥ijss of distilled water, in doses of gtt. x morning and evening for the first four days. The dose was then increased to about gr. $\frac{1}{15}$ daily, no toxic symptoms being produced. In a month the daily quantity was increased to gr. $\frac{1}{10}$. The other patient was treated in much the same manner, except that oxide of zinc was used at one time with the atropine. Both patients markedly improved, and the medicine being continued, had no epileptic convulsions for more than two months. WEISS therefore draws the following conclusions: 1. The bromine preparations when given in large doses always produce disagreeable disturbances of the digestive system, and will be superseded by atropine. 2. Atropine has already lessened, in very small doses, the vehemence and duration of single epileptic attacks, and has lengthened the intervals. 3. Atropine medication is successful in all forms of epilepsy. 4. When it is desired to obtain lasting results from atropine, it must be given in such doses that the lighter toxic symptoms—dryness of the throat and paralysis of accommodation—shall be interrupted. 5. As the atropine medication is continued, the tolerance for it improves so much that the continued administration of

gr. $\frac{1}{13}$ a day (in the first case mentioned) produced only very slight toxic symptoms.—*Centralb. für die Gesammte Therapie*, June, 1883.

ERGOTINE HYPODERMATICALLY IN PROLAPSUS ANI.—DR. JETTE describes his observations with this treatment, first introduced by M. Vidal, at l'Hôpital St. Louis. The preparation is composed of Bonjean's ergotine grs. xv, cherry-laurel water ℥j. It should be freshly made, so as to be of a limpid color and fresh and agreeable odor. The injections are made every other day, commencing with fifteen drops, and, if this is insufficient, going on to twenty or twenty-five. This amount is inserted very slowly into the fibres of the sphincter to the depth of from three-quarters to one and one-half inch. Severe lancinating pain is caused, which then becomes dull and continuous, only ceasing after some hours. After three or four injections contractions of the sphincter and fibres of the intestine commence. A sense of constriction and traction upwards is felt by the patient and observed by the surgeon. Various disturbances may take place; thus, if the doses of ergotine are too weak, there may be frequent desire to go to stool and to pass urine; and when they are too strong there may be spasm of the neck of the bladder, with temporary retention of urine. In some persons M. Vidal observed a tendency to vertigo or syncope, and painful præcordial constriction, with a hard, close, somewhat slow pulse. The later injections become more active, as if cumulative, and cause a more prolonged tenesmus than the early ones. The duration of treatment varies from a few days to some weeks, and seems quite independent of the solution employed, the dose injected, and the intervals observed. To render the cure certain when once effected, it is of importance that three or four supplementary injections should be made.—*Practitioner*, June, 1883.

INJECTION OF CARBOLIC ACID IN NEURALGIA.—DR. SCHRUMPF publishes in the *Gazette Médicale de Strasbourg* an account of the success which he has met with from the hypodermic injection of carbolic acid in seventeen cases of sciatica, lumbago, cervico-brachial neuralgia, pleurodynia, and muscular pains. Pains which may have lasted for weeks or months are soon relieved, sometimes by a single injection, and at others by four or five, and never requiring more than nine injections. The usual dose was three centigrammes, but in obstinate cases this was doubled or trebled; and Dr. Schrumpf believes that much larger doses may be employed with impunity. He has never found any ill-effect result from the injections, but they are only useful in idiopathic neuralgias, and not in those which are due to spinal disease, compression of nerves, or deeply seated varicose swellings.—*Medical Times and Gazette*, June 16, 1883.

REMOVAL OF TUMORS OF THE BLADDER.—At a late meeting of the Royal Medical and Chirurgical Society, SIR HENRY THOMPSON reported his experience in the surgical treatment of tumors of the bladder, comprising now in all twelve cases (see THE MEDICAL NEWS, Feb. 24, 1883, p. 215). The history, treatment, and histological examination of each of these were given in detail. The total result had been that, out of twelve cases, there had been seven recoveries, more or less partial, and five deaths, In nine cases, the age of the patients was over fifty. In malignant tumors, painful micturition had generally been the first symptom; in innocent tumors, hæmaturia had come first, and pain, if any, later. It had been frequent to find a little florid blood passed at the end of micturition only. Microscopical examination of the cells and fibres to be found in the urine had proved very valuable, though there were some points on which the observer was liable to be deceived; in some cases, villous processes could be found in the urine, and by these the diagnosis was rendered certain. In three cases, calculi had been found to coincide with papillomatous growths, which favored the theory that the papillomata were the result of local irritation. In many cases, only a part of the tumor had been removed; but the author did not consider such cases as by any means necessarily unsatisfactory, for the cicatrization thus produced often led to contraction and consolidation of the remainder. In the hospital-museums of London, there were about one hundred specimens of vesical tumors, which the author had inspected; and of these, as far as he could judge, about sixty were innocent and forty malignant. The label "cancer" he considered to have been too frequently used on the specimens. Out of the sixty cases of innocent tumor, about thirty or thirty-five, as far as could be estimated from their present condition, seemed to have been such as could have been removed, at least in part, by the author's method; and he wished it to be continually borne in mind that any successful operation would have been a clear gain from an otherwise inevitable death; for, without the aid of art, such cases invariably bled to death—some of them needlessly.

MR. MARSHALL asked whether his experience of cases, in which no tumors were found on exploration, had furnished him with any certain clue to their diagnosis before operation.

SIR HENRY THOMPSON, in reply, said that the conviction was growing upon him strongly that there were many such cases as would justify operation which were not discovered, or in which operation was not attempted. He considered that cancerous cases should be eliminated by diagnosis before operation, and no operation attempted upon them, but that of the remainder, about one-half could be healed. He started from the hypothesis that all cases of vesical tumor would be fatal, sooner or later, by their hemorrhage or their malignancy, and therefore he regarded operation as the only possible method of cure. Of such cases and method of treatment, he admitted that three years ago he was comparatively very ignorant. Their most frequent history was that they came first under the care of a physician for hæmaturia; then, after a time, pain followed, and a surgeon was called in; he sounded the case, and found no stone; the case passed on to another surgeon, who sounded again without finding stone; the hemorrhage was sometimes supposed to be renal, and the patient was sent back to the country to die slowly of this chronic hæmaturia. That was one reason why so few specimens were to be found in the museums compared with the frequency of the disease, He had himself opened twenty-seven bladders in exploration, and had found only twelve tumors; but he considered that a very good result, for the results of the simple wound, when the neck of the bladder was not cut through, were very slight, and the wound healed rapidly. Four or five years of painful symptoms which were not clearly explicable on any other hypothesis certainly justified an exploratory incision. He had considered the use of nitric acid, and had come to the conclusion that it would do more harm than good.

In two cases in which he had operated for papilloma, he had found a second operation on the remainder of the growth desirable, and that had given him the opportunity of placing his finger on the scar of his previous operation, and of finding that part of the coat of the bladder quite healthy. The mode of operation was admittedly difficult, and he showed many forms of curved and lateral forceps which he had

found to give him much greater command of the whole surface of the bladder. He had never attempted to insert the forceps whilst his finger was in the bladder, for he considered that that would almost inevitably injure the neck of the bladder severely, and that was the point which he considered of the greatest importance to avoid, as rendering the healing of the wound very much more dangerous and lengthy.

He described the plan he had found most successful—viz., to insert the forefinger first through the urethral incision, and make a complete examination of the interior of the bladder, so as to feel familiar with the exact position and size of any tumor present; then quietly to withdraw the finger and insert the forceps, guided only by the knowledge he had acquired, and make a decided nip with it with little or no traction; then to withdraw the forceps, reinsert the finger, and remove, if necessary, with the finger-nail, anything that the forceps left incompletely divided. It was often best to leave the detached pieces of the tumor in the bladder for the moment, and remove them all at the end of the operation by the lithotomy scoop. If too much infrapubic pressure were employed, it made the depressed portion of the bladder feel like a tumor; this he attempted to avoid by keeping up the bladder-wall with a ball-probe alongside the forceps, but he was bound to admit that in one case the wall of the bladder had given way after an operation.—*British Med. Journal*, June 16, 1883.

HYSTERECTOMY.—M. TERRILLON has successfully employed Schrœder's proceeding, which consists, after removing the tumor, in taking a V-shaped piece from the uterus, bringing the two branches together by means of sutures and then uniting the tendons of the section. It is very necessary that the peritoneum be comprised in the sutures, and that no shred of peritoneum should rest in the wound. M. Terrillon prefers deep sutures. By these the uterine cavity is closed, and there is less danger of septic poisoning. This differs from the old method, in which the pedicle is left in the wound. After the V-shaped piece is removed the uterus is bound by the Cintrat serre-nœud, which prevents hemorrhage. This is removed when the sutures are put in place.—*Journal de Méd. de Paris*, May 19, 1883.

A SUCCESSFUL CASE OF REMOVAL OF A LARGE SPLEEN.—A successful case of removal of the spleen in leukæmia, by FERNANDO FRANZOLINI, of Turin, is recorded in the *Wiener medicinische Wochenschrift*, No. 20. The patient was a pale, delicate woman, twenty-two years of age, who worked in a match manufactory at Paderno. From childhood she had been sickly, and since the age of seventeen menstruation had been irregular, and at times she had suffered from hysterical symptoms. She had never lived in a malarial region, and had never suffered from intermittent fever. In the beginning of the year 1879, without any assignable cause, she began to suffer from severe pain in the left side of the abdomen, which was increased on standing and on pressure. In July, 1880, a splenic tumor of considerable size could be made out, and in January, 1881, an increase of the white blood-corpuscles was noted. The patient was anxious to submit to an operation with the object of obtaining relief, and was admitted into hospital. On admission, the skin and mucous membranes were very pale; there was no œdema, and no enlargement of glands. A tumor could be detected in the left side of the abdomen, which felt elastic, but the boundaries of the tumor could only be ascertained with difficulty. The dulness extended in the long axis twenty-four centimetres (nine and one-half inches), in the transverse axis twenty-seven centimetres (ten and one-half inches). The white blood-cells were five times more numerous than normal. There was no albumen in the urine.

An incision was made along the linea alba to the left of the umbilicus, twenty-two centimetres (eight and one-half inches) in length. The coils of intestine and the large omentum which presented were protected by warm water compresses, and the spleen, with the help of the assistants, was pushed out of the wound. On account of the shortness of the pedicle in the floor of the peritoneal cavity, it was found necessary to place a double silk ligature on the splenic artery, which was the size of the forefinger, and on the vein, which was the size of the thumb. The gastro-splenic ligament included in two ligatures, and the diaphragmatic in one ligature, were divided. The patient lost scarcely a spoonful of blood. The operation lasted eighty minutes. The spleen measured in length 26 centimetres (10¼ inches), in breadth 16.5 centimetres (6½ inches), in thickness 7 centimetres (2¾ inches), and weighed, after removal of 300 grammes (9 ounces of blood), 1526 grammes (52 ounces). Notwithstanding an attack of pleurisy on the left side, accompanied by severe pain and fever, which lasted eight days, the wound healed, and the patient is now perfectly well with the exception of severe uterine pain at the menstrual period. The white blood-cells diminished gradually, and an examination of the blood in January, 1882, four months after the operation, showed almost a normal condition.—*Medical Times and Gazette*, June 9, 1883.

JEQUIRITY IN GRANULAR LIDS.—DR. W. A. BRAILEY reports three cases successfully treated with this new drug, and gives the method of preparing it for use. The seeds, which are extremely hard and tough, are first broken and freed from their shell. They are infused for two hours in cold water, in the proportion of one to fifty; by this time they are so softened as to be easily pounded up, after which they are soaked in the same water for twenty-two hours more. The solution now requires only careful filtration to be ready for use. It is applied to the everted lids, or, when this is impossible, between the lids, thrice daily, till a severe conjunctivitis, of a purulent or diphtheritic type, is produced. He appends a brief summary of certain cases, which may indicate, to some extent, the relative value of this and other methods of treatment. Though it does not, in ordinary cases, immediately destroy all the granulations, it diminishes very considerably the pain and photophobia, and has a decided influence in clearing the cornea. Nor does it appear to affect this tissue injuriously, in which respect we must admit it to be decidedly superior to inoculation from cases of ophthalmia neonatorum. At first, he had considerable hesitation about introducing cases of inoculation with jequirity into the general eye ward; but he has not found that it makes any difference to the progress of other cases, whether operative or not. Though precautions against contagion have naturally been taken, he has not succeeded in inoculating into the sound eye the ophthalmia produced by this agent.—*British Medical Journal*, May 19, 1883.

IODOFORM AS AN ANTHELMINTIC.—DR. SCHILDOWSKY has found that iodoform is a powerful anthelmintic against nematodes. He has used it in three cases with such success, that he believes himself authorized to recommend it. The dose for an adult is gr. j of iodoform mixed with grs. x of bicarbonate of soda. Of course, the dose for a child must be proportionately small.—*Journal de Méd. de Paris*, June 2, 1883.

THE MEDICAL NEWS.

A WEEKLY JOURNAL

OF MEDICAL SCIENCE.

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SATURDAY, JULY 7, 1883.

BEFORE OR AFTER MEALS?

SUCH is the question often asked of the doctor, but the answer is not always ready. Are there any rules by help of which the decision may be rightly made? One great principle will serve for the disposal of many kinds of prescriptions—that an organ in a state of irritation must be shielded, as far as may be, from the action of irritants. Medicines that are irritating should be given after meals, when the stomach is full, unless the chemical changes which must then occur will destroy their qualities. Mineral remedies, as the salts of copper, zinc, iron, and arsenic, should be given after meals, unless local conditions require their administration in small quantity before meals. Of the latter, arsenic affords a capital illustration. Large doses, acting as an irritant, should follow food, which protects the mucous membrane in a double capacity, but small doses, intended to act on the stomach terminals of the vagi, must be given when the organ is empty. Chemical reasons, also, influence the question of the time for administering mineral irritants. Thus, oxide and nitrate of silver, intended for local action, should appear in the stomach during its period of inactivity, lest, at other times, chemical reactions destroy the special attributes for which these remedies are prescribed. Iodine and the iodides further illustrate this point. Given on an empty stomach they promptly diffuse into the blood, but if digestion is going on, the acids and starch form products of inferior activity, and thus the purpose which they were intended to subserve is defeated.

Substances prescribed to have a local action on the mucous membrane, or for prompt diffusion unaltered, are preferably given before meals. It should not be forgotten that the liver is a great sieve, which retains in its structure for a time, and then excretes, many noxious substances; hence it is, in part, that the subcutaneous administration of many remedies is more effective than the stomachal. The condition of the stomach veins after meals is such as to lessen the activity of diffusion of poisons, and hinders their passage through the liver. It follows that active medicaments in doses near the danger line, are more safely administered after meals.

Probably the most important questions connected with the period of administration of remedies, are those affecting the acidity and alkalinity of the blood and urine. When shall acids and alkalies be given, before or after meals? Here we have to deal with chemical facts that afford small opportunity for differences of opinion, and yet how diverse the views of practitioners; how much more diverse the practice. They must be considered separately.

First, as to acids. When acids are prescribed with the view to check the excessive formation of the acids of the gastric juice, when should they be administered? A moment's consideration given to the laws of osmosis will decide this question. As the blood is a compound fluid with an alkaline reaction, but which furnishes to the gastric glands the materials for an acid secretion, it is obvious that an acid taken into the stomach before digestion begins, will determine, by the laws of osmosis, a flow through the intervening membrane of the alkaline constituents. Hence, when there is an excess in the formation of the acid constituent of the gastric juice, an acid may be given before meals to check the osmosis stomach-ward of the acid-forming materials.

When the alkaline condition of the blood and urine is alike in excess, when shall acids be administered? Obviously in the interval between the digestive acts; for then—the stomach being empty, and the veins flaccid—the most favorable conditions for the diffusion of acid into the blood exist. An alkaline fluid—the blood, on one side of the animal membrane, and an acid fluid, the medicament, on the other, are the conditions most favorable to osmosis. Then the acid diffusing into the blood, and out again from the kidneys, changes the reaction of these fluids from alkaline to acid.

Alkalies require different handling. When an excess of acid exists, as during the progress of digestion, how may alkalies be used? It is a matter of quite common observation that an alkali, as the sodium bicarbonate, will quickly relieve the excess of acid by neutralizing it; but it is equally true, al-

though not as clearly recognized, that the relief thus purchased is at the expense of a continually increasing recurrence of the same malady. It may then be affirmed, as a rule of practice, that the habitual use of alkalies to relieve an excess of acid is unwise and hurtful.

Alkalies are used to increase the formation of acid, when the gastric glands perform this duty inadequately. An alkali given before meals diverts to the gastric glands, by the laws of osmosis, those materials in the blood out of which the acid constituent of the gastric juice is elaborated.

There are two periods when alkalies may be used to lessen the acidity of the urine: just before meals —when the acid-forming materials in the blood diffuse into the stomach glands, and the alkaline medicament diffuses into the blood and outwards into the urine; and after digestion is completed—when the alkalies diffuse directly into the blood, without interference from the contents of the stomach.

The effect of the remedy on the stomachal digestion, must, also, be taken into consideration in deciding on the time for its administration. For example, an alkali taken during the time when the reaction of the stomach juices should be strongly acid, must necessarily hinder, if not arrest, the digestive process for the time being. The metallic salts—notably corrosive sublimate—alcohol, tannin, and some other agents impair or destroy the ferment, or digestive power, of pepsin. Whenever, then, it is necessary to preserve the integrity of the stomachal digestion, the administration of the offending substance must precede or follow the meals at a sufficient interval.

Again there are remedies, which should be given with the meals, such as food adjuncts, and medicines required in the process of tissue construction. Wine that is intended to act as a food, is most beneficial when taken, slowly, during the course of the meal. The objection above stated as regards the ill effect of alcohol on pepsin, is not applicable here, except to the stronger spirituous wines, in large quantity—for the ordinary medicinal wines do not have sufficient alcoholic strength to injure this ferment. Iron, phosphates, cod-liver oil, malt, and similar agents, should, as a rule, go with food through the digestive process, and with the products of digestion enter the blood.

It follows from the foregoing considerations, that the relation of medicine-giving, to food-taking is not merely a question of taste or convenience, or expediency. There are rules capable of exact application, and hence the administration of any medicament may be accurately adjusted to the requirements of the function of digestion.

THE ABORTIVE TREATMENT OF INFECTIOUS DISEASES.

MAY we ever expect, by internal remedies, to combat successfully those invisible enemies of the human race, which we, at the present day, regard as among the lowest vegetable organisms? Such is the question asked by PROF. BINZ, of Bonn, in opening the discussion on the above subject at the recent Congress of German Physicians at Wiesbaden. Those who are familiar with Prof. Binz's experiments (*Centralbl. f. d. med. Wissensch.*, Berlin, 1867) on the action of quinine upon the lower forms of protoplasm, can readily anticipate his answer. In his opinion, we dare not negatively answer this question if a single example can be found of an agent possessing these properties, and he says that we have not only one, but five remedies by which we can reach and render abortive certain causes of disease identical or analogous to the organisms referred to, viz., quinine, mercury, iodine, arsenic, and salicylic acid. Assuming the parasitic origin of malarial fever and reasoning from his experiments which prove the destructive influence of quinine upon vegetable protoplasm, he comes to the conclusion that quinine cures intermittent fever because it destroys the morbific organism in the blood. He brings to bear other facts to prove this proposition, some of which, relating to the culture of the malarial fungus and the effects of quinine upon it, have already been detailed in these columns. For others we must refer our readers to the *Deut. med. Wochenschr.*, of May 2d, where the paper is published. One other fact may be mentioned—all remedies which have heretofore been employed with success against malarial fevers possess antiseptic properties to a greater or less extent. They include quinine, arsenious acid, eucalyptol, beberin, carbolic acid, the sulphites, iodine, and ethereal oil of mustard—quinine being the most efficient, because of the greater tolerance of the nerve-centres towards it.

Similar is the action, according to Binz, of salicylic acid in rheumatism and relapsing fever, of mercury in syphilis, and of iodine in the gummy nodes of the latter disease. We possess as yet no parasiticide for the fungus of tuberculosis and diphtheria, but in this respect we are in the same position we were in relation to malarial fever, syphilis, and acute rheumatism, before the specific properties of quinine, mercury, and salicylic acid were discovered, and there is no reason why we may not still find the coveted parasiticide.

These views of Prof. Binz received no contradiction, and the co-reporter, Prof. Rossbach, of Jena, was confident that such abortive remedies as those referred to, exist for other diseases, and we have only to seek for them systematically to find them. In his judgment the action of salicylic acid and

benzoic acid in rheumatism are as certain as that of quinine in malaria, although he admitted that the lower organisms lying at the root of these affections had not yet been discovered. At the same time, their infectious nature is disputed by none.

In marked contrast with the above was a discussion on an allied subject, and held almost simultaneously—that at the Academy of Medicine in Paris upon the treatment of typhoid fever. This was really a report of the results of experience in the treatment of the disease, and not a discussion involving an attempt to establish a theory or doctrine. Both methods are essential to the progress of medical knowledge, and they illustrate also, perhaps, the present bent of thought of the nationalities which they represent.

One member of the Academy had used quinine, another purgatives, another cold baths, another salicylic acid, another digitalis, etc. The participants were all eminent men and of large experience, including MM. Jaccoud, Hérard, Dujardin-Beaumetz, Hardy, and Sée, and their remarks abounded in much practical good-sense.

To the impartial examiner of these reports there is but one conclusion to be reached, and it is that there is as yet no specific treatment for typhoid fever, and that any of the so-called specific measures, whether by cold baths, sulphate of quinine, the antiseptics, or any other remedy, if exclusively relied on, may be not only useless, but harmful and dangerous. The method which recommends itself most to the practitioner of intelligence and experience may be characterized as the *armed-expectant* plan, in which a rigid hygiene and carefully selected diet are secured, as well as a control of all symptoms as they become exaggerated,—colliquative diarrhœa by opium, high temperature by refrigerants and antipyretics, constipation by suitable aperients, debility by supporting measures, etc.

THE GERM OF YELLOW FEVER.

THE Department of State has received from Rio de Janeiro an extract from a report by DR. DOMINGOS FREIZE, a distinguished physician of Brazil, on an investigation into the nature of the yellow-fever poison. Dr. Freize recognizes in the blood of yellow-fever patients a cryptococcus, to which he has given the specific title of *zanthogenicus*. In the phases of its development it appears as minute points, or as large round cells with grayish or fringed margins, and bright transparent centres. Besides these there are occasionally seen transparent granulations, aggregated in a yellowish matrix.

A gramme of blood charged with these organisms, from a yellow-fever patient, was injected into the veins of a rabbit which died in a quarter of an hour with tetanic convulsions. At first it was suspected that some accident had caused the death of the animal, such as air getting into the vein, or some clot, but in either of these events death should have been sudden and unaccompanied with the symptoms mentioned. At the autopsy visceral congestions were found similar to those seen in persons dead of yellow fever, and the blood was found to contain the cryptococcus which was present in that which had been inoculated.

A gramme of the blood of this rabbit was injected hypodermically into a guinea-pig, which died at the end of some hours. Its blood was found to contain an extraordinary quantity of the cryptococcus. A second guinea-pig was inoculated by hypodermic injection with the blood of the first one, and after some hours the animal appeared feverish and oppressed, with cold ears and paws, trembling, and blackish vomiting. It died in a short time, and its blood showed an infinity of the characteristic organisms.

Dr. Freize considers that these experiments establish the parasitic nature of yellow fever, and that the parasite is the C. xanthogenicus found in every undoubted case of the disease.

He has also discovered and isolated an alkaloid from the black vomit, which he regards as a product or excretion from the microbes. He considers that the color of black vomit is not due to altered blood, but to the cryptococcus. He regards cemeteries as perennial foci of the disease. Some earth was taken from the grave of a man who had been buried the year before. A guinea-pig shut up in a confined space with this earth died in five days. Its blood was literally crammed with the cryptococcus in various stages of evolution; its urine was albuminous, and its brain and intestines yellow with the peculiar pigment of the microbe.

IODINE AND MALARIAL FEVERS.

IN the issue of *The American Journal of the Medical Sciences* for July, we find a careful and logical analysis of seventy-six cases of malarial fever treated with the tincture of iodine by DRS. ATKINSON and WOODS, at Bayview Asylum, Baltimore. The bald facts are, that of seventy-six cases so treated, only sixteen were cured, and in respect to these cures, some doubts may be entertained. As the authors of the paper show, very different, and far more encouraging reports have been put forth from time to time in regard to the antimalarial activity of iodine. Why should such a discrepancy exist? The explanation is to be found, doubtless, in the old source of error—mistaking the *post hoc* for the *propter hoc*—and in the simultaneous admin-

istration of remedies, the curative result being ascribed to the wrong one.

Although it may be shown that iodine is not effective as against the paroxysms of intermittent and remittent fever—that it has but little antiperiodic power—it can hardly be doubted that it does remove certain of the morbid products of malarial action. One of the greatest embarrassments experienced in the treatment of intermittent fever, is the prevention of subsequent relapses: partly due to the slow multiplication of the germ, but largely to the structural alterations induced by the preceding seizures, the paroxysms return. Iodine here renders a most important service by removing the changes in the liver and spleen, the pigment deposits, etc. It follows, that quinine having far greater antiperiodic power, is the appropriate remedy to arrest the periodical seizures, whilst iodine should be utilized to remove the products of the infective processes. During the interval between the attacks, iodine, especially iodide of ammonium, should be given in small doses at short intervals, so as to insure diffusion into the remotest anatomical elements.

There is still another point of view from which the administration of iodine in malarial diseases is to be regarded. It is a capital expedient for relieving the excessive irritability of the stomach which, in not a few cases of acute malarial poisoning, interfered seriously with the administration of the antiperiodic. It must be given in small doses for this purpose—from one-fourth to one drop of the tincture at short intervals. Better results are had from a combination of iodine and carbolic acid under the same circumstances. Not only is the combination more effective in allaying gastro-intestinal irritability, but it has also decided antiperiodic power.

HÆMOGLOBINÆMIA AND HÆMOGLOBINURIA.

UNDER the above title, PONFICK discusses a condition of the blood in which the hæmoglobin is dissolved out of the blood-disk. He showed that a large number of substances possess the power, when injected into the blood, of dissolving the red blood-corpuscles. Among them are the bloods of other species and numerous poisons. The substances in question may, on the one hand, so act upon the blood as to destroy the affinity between the coloring matter and the stroma of the corpuscle, breaking up the latter into innumerable smaller fragments, such being the action of heat and cold (freezing). Or, if it be chemical agents, the stroma of the corpuscle may remain as intact but invisible bodies (Norris' invisible corpuscles?).

An important symptom of such solution is the appearance of blood-coloring matters in the urine, which may, in consequence, be colored red, black, or dirty red. The urine contains hæmoglobin, but no corpuscles. The organism frees itself of the fragments of blood-corpuscles, first through the spleen, which is often quickly distended by them. The freed coloring matter passes first to the liver, and is largely separated with the bile. But to this separation there is a limit, and when it is reached, the coloring matter passes over into the urine.

Even a small quantity of this coloring matter, according to Ponfick, throws the kidneys into a state of great irritability; and the great danger of hæmoglobinæmia, according to him, is an obstruction of the uriniferous tubules, which may produce inflammation with a fatal termination.

Ponfick therefore makes three grades of hæmoglobinæmia: the first in which there is none in the urine, and which is therefore not recognizable; second, that which lasts from one to three days, which may terminate favorably if the tube-casts can be washed out of the uriniferous tubules by increased force of the heart's action, and which is, therefore, amenable to diuretic treatment; and, third, cases in which the tubuli are irremediably obstructed. There may also be in these hæmoglobinæmias high degrees of hæmotogenous jaundice. From facts adduced by Lictheim, Ehrlich, Schumacher, and Ponfick, there would seem to be some relation between syphilis and hæmoglobinæmia.

CYANIDE OF MERCURY IN ATROPHY OF THE OPTIC PAPILLA.

GALEZOWSKI maintains that he has often cured atrophy of the optic papilla, syphilitic in origin, by the subcutaneous injection of cyanide of mercury. He employs a solution containing five milligrammes of the cyanide in a gramme of water—about one-twelfth of a grain in fifteen minims. This he injects into the temporal region, daily. If the dose be much increased above this amount, there is danger of inducing an obstinate diarrhœa.

In the course of the discussion on these observations, Rabuteau held that the efficacy of the injection proposed by Galezowski was due to the mercury, and that the cyanogen, so far from contributing to the curative result, was a positive hindrance, because its activity as a poison limited the quantity of mercury which could be administered in this form. Galezowski replied to this in the usual terms. When a practical man's observations are opposed by some scientific statement, he is apt to observe, as Galezowski did to Rabuteau, that no chemical theory is of any value as opposed to practical experience.

REVIEWS.

THE MEDICAL AND SURGICAL HISTORY OF THE WAR OF THE REBELLION. Part III., Vol. II. SURGICAL HISTORY. PREPARED UNDER THE DIRECTION OF JOSEPH K. BARNES, SURGEON-GENERAL, U. S. A. By GEO. A. OTIS and D. L. HUNTINGDON, Surgeons, U. S. A. 4to. pp. xii. 986, xix. Washington: Government Printing Office, 1883.

WITH this volume, the Surgical Series of the History of the War is completed. Just how much of it is due to the lamented Otis, and how much to Dr. Huntingdon, is not stated, but the latter pays a justly due compliment to his cultivated and able predecessor, and it is no little praise to say that the work does not seem to have suffered by its completion by different hands from those that laid the foundations so wisely and so well.

After completing the systematic consideration of gunshot wounds by a chapter on the wounds of the inferior extremities, the authors have considered miscellaneous injuries; the complications of wounds, such as ligations, tetanus, wounds of nerves, gangrene, erysipelas, and pyæmia; anæsthetics; and conclude with two chapters on the medical staff and the materia chirurgica, and the transportation of the wounded.

The wealth of material at their disposal has been something marvellous, and no less so the painstaking care and exactness with which it has been utilized. The reader will be struck with the minuteness of detail and the thoroughness with which the subsequent histories of many of the patients have been obtained by correspondence and by research in the Pension Office. The illustrations are both numerous and splendid. Over five hundred wood-cuts and forty beautiful plates, many of them chromo-lithographs, adorn the volume.

To analyze the work, is impossible in the limits of this brief notice. No surgeon can well afford to be without a copy of the work. No surgery will be written within the next century without reference to its facts and figures. *Monumentum ære perennius* must be written upon it. It reflects the greatest credit on its authors and the intelligent liberality of the government that has produced it.

SOCIETY PROCEEDINGS.

MAINE MEDICAL ASSOCIATION.

Thirty-first Annual Meeting, held at Portland, June 12, 13, and 14, 1883.

(Specially reported for THE MEDICAL NEWS.)

JUNE 12TH, FIRST DAY,. MORNING SESSION.

THE meeting was called to order by the *President*, DR. GEORGE E. BRICKETT, of Augusta.

DR. F. H. GERRISH, of Portland, presented a biographical sketch of Dr. Alexander Ramsey, prepared by Dr. George P. Bradley, U. S. N., in 1877.

THE REPORT OF THE TREASURER,

DR. A. S. THAYER, exhibited an unusually prosperous condition of the Association; notwithstanding the fact that large expenditures have been made, careful management has established the treasury upon a firm basis during the past five years, and has accumulated to its credit a balance of between six and seven hundred dollars.

The Association made a tardy recognition of its duty to its Treasurer, who has served without any compensation, and under a bond, by adopting a standing rule providing for a yearly salary.

A committee was appointed to provide for a Society banquet at the session of 1884.

DR. S. C. GORDON, of Portland, exhibited a photograph of an

APPARENT HERMAPHRODITE,

whose development on the right side, as seen in the portrait, was unmistakably feminine—long hair, smooth face, and mamma of average size; on the left side the hair was short, a moustache adorned the left half of the lip, and the left side of the chest was flat and covered by a thick growth of hair.

In reply to a question, Dr. Gordon stated that he knew nothing of the appearance of the sexual organs, never having seen the person in question.

DR. STANLEY O. WARREN, of Portland, reported a case of

ABSENCE OF THE UTERUS

in a woman twenty-five years of age. Patient always healthy. English descent. First appearance of menstrual blood when eighteen years old; only enough to stain the linen. This was not again present for several months. She thought it came from the vagina. Since last menstruation (?) there has been bleeding at irregular intervals from the rectum, but never enough to be called a flow, only sufficient to soil the linen, and lasting but a day or two.

Married at twenty-one. Intercourse painful, and only accomplished after long and repeated attempts. Half an hour after entrance was effected, there occurred from the vulva a free discharge of dark clots, continuing for three or four days. Sexual desire always present. Dorso-lumbar pains, with ovarian neuralgia and frequent attacks of congestive headache. Frequent severe epistaxis. Physical examination shows feminine development; external genitals normal; vagina, a simple cul de sac, an inch in depth, capable of being lengthened by pressure to admit the entire finger. There is no opening in the vault of the vagina, nor cicatricial tissue to indicate acquired atresia. Ovaries detected by rectal touch connected by a band of firm tissue, which may be a Fallopian tube or rudimentary uterus. No other pelvic organs discoverable by thorough rectal or bladder examination. She is making preparations for another marriage.

A CASE OF CYST OF THE ANTERIOR WALL OF THE VAGINA

was also reported by DR. WARREN. At the operation for its removal by Dr. S. C. Gordon, of Portland, it presented the appearance of a firm and tense tumor, below the base of the bladder, the size of a hen's egg, and having no connection with bladder or urethra. On making an incision a quantity of straw-colored serum escaped. Attempts to dissect away the cyst-wall, after dividing it in a line with the vagina, were ineffectual; the cavity was carefully mopped out with phenol, the upper portion sutured, and drainage established. It was doubtless a cyst of one of Gartner's canals. Further examination disclosed on the right of the vagina a false passage admitting the tip of the little finger, and in depth was two inches. Situated in the vesico-vaginal tissue, it may have been, at some period of life, a cyst like the one opened.

These cases are rare. A case similar, yet differing in one important respect, the cyst apparently communicating with the peritoneal cavity, was reported to the New York Obstetrical Society June 7, 1881.

AFTERNOON SESSION.

Delegates were received and welcomed from other medical societies.

THE PRESIDENT delivered a short

ADDRESS,

referring to the rise of the Association from a humble birth, in 1853, at the Tontine Hotel, in Brunswick, the seat of the Medical School of Maine. Sixteen of the thirty-one gentlemen who have occupied the president's chair are dead. He expressed strongly his belief that the common welfare of the community demanded that the Maine Medical Association should be unremitting in its endeavors to secure such State legislation as will secure a State Board of Health and a medical registration law.

The question of new remedies and pharmaceutical preparation was recommended as worthy of original investigation.

The Code of Ethics of the American Medical Association was declared to be sufficient, and none too strong for rational, liberal, and intelligent physicians, who ought, above all things, to seek truth.

The report of the committee annually appointed to visit and report upon the Portland School for Medical Instruction was presented by Dr. O'Brien, of Bristol.

The Association then took up for consideration four

CONSTITUTIONAL AMENDMENTS,

two of which provided for such change in the rules for discipline as would remove delegated power from the Censors, and practically convert the Association into a Board of Trial. These were unanimously rejected. Those which provided for the creation of an Examining Board, in addition to the present Board of Censors, were indefinitely postponed.

DR. PIERCE, of Freeport, read a paper on

SYNOVITIS.

PROF. S. H. WEEKS spoke of a specimen in the cabinet of the Medical School, which has a heavy chalky deposit not only upon the membrane, but encrusted upon the articular cartilages. In the chronic form, after tapping and application of elastic roller from toes to thigh, passive motion becomes as important as rest in the early stages.

DR. A. K. P. MESERVE, of Portland, read a paper on

ACUTE INFLAMMATION OF THE MIDDLE EAR,

considering the subject from the standpoint of the general practitioner. The rapidity with which tympanic inflammation goes on to effusion, suppuration, and perforation, often rendering it impossible to refer the case to the specialist, until great damage is done to the delicate structures of the ear, demands that the general practitioner should always be prepared to treat this painful and often dangerous affection.

The extreme delicacy of the anatomical relation and physiological adjustment of the several parts of the middle ear, will at once suggest an explanation of the fact that pain is such a prominent symptom of inflammation of this region of the ear, it being usually the first symptom to call attention to the disease. The pain is usually sudden in onset, and agonizing in character, passing rapidly to its height, and only ceasing with effusion or suppuration, or with perforation, of the drum-head. As causative agents, colds, dampness, furuncles in the meatus—the exanthemata especially—scarlatina, typhold fever, pneumonia, hypertrophied tonsils, pharyngitis or nasopharyngitis, were mentioned.

The course of invasion is through the Eustachian tube; therefore, we should condemn as dangerous the use of the anterior nasal douche.

Inflamed and swollen gums during dentition are a frequent cause. When the hearing power is apparently more acute than normal during the early stages, it may be taken as an indication that the disease is chiefly confined to the membrane, not having involved the deeper structures.

The fulness and subjective noises in the head bear no direct relation to the severity of the disease; they are often absent. Perhaps cases in which these are prominent symptoms recover more slowly than when they are absent; the fever, ordinarily slight, sometimes raises the temperature to 103° Fahrenheit. The superficial or deep-seated redness of the membrana tympani will often enable the practised observer to determine the origin of the disease, though, if the dermoid layer be chiefly affected, the walls of the meatus are likely to be somewhat swollen, thereby interfering with a good view.

The ear should always be examined by the mirror and speculum, and by tests for hearing when practicable, either in child or adult, and especially in children when they awake with a start or scream, or seem disturbed by noises usually unnoticed. Convalescence from any serious disease, or one of the eruptive fevers, is an especial indication to explore thoroughly. By early treatment resolution is hastened, and the serious accidents possible may be averted.

Therapeutical measures for the relief of disease in other parts of the body are also applicable here. Local abstraction of blood by leeches from the region of the ear, and continued application of hot water to relieve pain, may be practised with good effect. The ear should be inflated through the Eustachian tube early in acute inflammation, and especially if there are redness of the throat and signs of extending inflammation therefrom.

The object should be rather to open the tube for the draining away of mucus, than to distend the membrana. A good method is to place one end of a rubber tube in the patient's mouth and the other in one nostril, closing the other nostril and directing the patient to blow through the tube. Paracentesis should be made as soon as demanded by bulging of the drum membrane, and the meatus kept dry with absorbent cotton, and the douche and inflation continued. The constitutional treatment is that demanded for all acute inflammations. Should the case be seen late, or go on to the purulent stage with perforation, the ear may be kept clean by douching with warm water and afterward carefully dried, and the Eustachian tube should be kept open, and the membrane gently brushed over with some mild astringent lotion, Zinci sulphatis gr. i–iij to water ℥j; if the perforation does not readily heal a strong solution of Argenti nitras gr. xl to water ℥j may be added; finely powdered acidum boracicum may be blown into the ear, and if subjective noises are troublesome, blisters may be applied to the mastoid region.

DR. E. E. Holt, of Portland, said that more attention ought to be paid to this class of cases by the general practitioner; a great number of all diseases of the ear coming to the specialist were chronic in nature. When tested for hearing, the ears should be examined independently. He would not puncture unless he had sure knowledge of the presence of pus. In reply to a query, Dr. Holt said he would not, as a rule, inflate the Eustachian tube in acute inflammation.

EVENING SESSION.

DR. H. N. SMALL, of Portland, presented a paper on

EXTRA-UTERINE PREGNANCY.

He said that notwithstanding the fact that extra-uterine pregnancy has attracted during the past few years a great deal of attention; the natural history of this accident does not yet seem to be well understood.

In most cases the cause cannot be decided: the victim may be a primipara or multipara, and we are unable to give any exact explanation. Some light may

perhaps be thrown upon the subject by past histories of pelvic inflammations, causing constrictions and displacements of the appendages of the uterus. The gravid sac *has* been found at the ovarian extremity of the tube, which at its uterine end was constricted as by a ligature.

Extreme uterine displacements may prevent the passage of the ovum through the Fallopian tubes. It is reported of a woman who in her first pregnancy underwent Cæsarean section, that becoming a second time pregnant, the child died in the eighth month, gastrotomy was performed followed by death on the tenth day. The unclosed incision of the previous operation was found in the anterior wall of the uterus, through which the fecundated ovum had escaped into the cavity of the abdomen, become attached and developed. Perhaps mental and moral influences may operate as causative agents; the freedom of the lower animals from this accident may be due to the fact that they do not become a prey to emotional disturbances.

Displacements of the ovum is much more frequent in the human female than among those of the lower animals, but that it is confined to the human species, facts disprove.

Some pathological condition of the sexual apparatus is doubtless the prominent cause of this unfortunate occurrence. We have also as causes diseases of the oviduct, temporary flexion, and the obstruction of the tube by mucus.

Apparently the age of the woman has no controlling influence, and by far the most difficult question in such cases is to locate the situation of the ovum. The relative frequency of the different varieties is difficult to determine. Lawson Tait recognizes only two forms. A bursting of the tube may allow the escape of the ovum, and its development may progress among the folds of the broad ligament; or the peritoneum may be also wounded, as well as the fœtal cyst, and the ovum received into the cavity of the abdomen. This is the view taken by other prominent authorities in America. They coincide in the view that the fecundated ovum may be arrested anywhere between the fimbriated extremity of the tube and the uterus, and even in that portion of the tube which passes through the uterine wall. Before the time of quickening, as a rule, the cyst ruptures, and death results from hemorrhage.

Dr. Holt then related the following history of a case of tubular pregnancy occurring in his own practice: In January, 1879, he was consulted by Mrs. T., multipara, for supposed uterine disease; menstruation had been irregular for several months. For six weeks she had not menstruated; was positive that she was not pregnant. Digital examination discovered softening of the os tincæ. Told her, he thought she was pregnant, and asked her to call again in one month. February 10, she had an attack of severe colicky pain, most severe in the left hypogastrium — violent, producing severe prostration. The next morning, she seemed all right again; pain absent, but some tenderness. February 18, a return of all these symptoms with alarming severity. At this visit, felt positive that he was dealing with a case of pregnancy of the left Fallopian tube. Was on the point of summoning counsel, when he was again called, on the 22d, found a new accession of pain in left iliac fossa, with metrorrhagia, all the symptoms of profound shock, and a hemorrhage, the amount of which the slight loss of blood per vaginam was by no means indicative. About two hours before my arrival she was sitting quietly, and suddenly felt as though something had been torn inside. It was now plain that it was tubular pregnancy, and that the cyst had ruptured. Reaction was secured by a free use of stimulants. The abdomen was visibly enlarged, and there was dulness on percussion. The uterus was pushed from its normal position by a mass behind, and on the left side it was a distinct tumor. Ordered opium and brandy *pro re nata*. The next morning, found acute peritonitis. Dr. A. S. Thayer, of Portland, saw the case in consultation. The patient lived about forty-eight hours. At the autopsy, twenty-four hours after death, the abdominal cavity was found to contain a large quantity of blood, with marked evidence of peritoneal inflammation; the left Fallopian tube was much enlarged, and at about two inches from the uterine end it contained a ruptured cyst, and hanging from it a three months' fœtus.

It cannot be expected that extra-uterine pregnancy can be always diagnosed without difficulty. The diagnosis in normal pregnancy is not always certain, unless we can count the beats of the fœtal heart; how much more difficult is it to locate the attachment of an ovum in a Fallopian tube or in the abdominal cavity.

The prognosis of misplaced conception is always grave; the tubal form most fatal, the ventral most favorable. Tubal rupture of the cyst almost always occurs at the third month.

In the present state of abdominal surgery if the diagnosis be positive, there is no reason why we may not operate to advantage and remove the cyst. If the cyst has ruptured, it seems there is but one resort, and that of but little promise—to cut down, ligate the bleeding vessels and perhaps remove the cyst. Certainly we ought to give the patient the benefit of all measures, even the most extreme when the probability is only certain death.

DR. S. C. GORDON believed that we could not overestimate the value of bimanual palpation in establishing a diagnosis. He regarded Rockwell's method of electro-therapy the best treatment, and in failure of this, should unhesitatingly take the chance offered by abdominal section.

PROF. F. H. GERRISH gave a description of a specimen in the cabinet of the Maine Medical School. It is a fœtus contained within a calcareous mass, removed from the abdominal cavity of a woman who died at the age of 60, after bearing several children, subsequent to the symptoms which marked the development of this tumor during her early married life. Dr. Gerrish offered this as bearing upon the question of prognosis.

DR. MESERVE reported a case of death from peritonitis, following a train of symptoms pointing to extra-uterine pregnancy. No post-mortem could be obtained.

Cases in which the occurrence of the accident was discovered at post-mortem, were reported by Drs. Hutchinson and C. G. Adams.

DR. S. H. WEEKS, Professor of Surgery in the Medical School of Maine, presented a verbal communication on the

NATURE AND TREATMENT OF FRACTURES ABOUT THE ELBOW-JOINT.

The different varieties were indicated by specimens, and their treatment illustrated by the exhibition of several pieces of fracture apparatus. That advocated as fulfilling the greatest number of indications was an immovable angular elbow splint made from wood, tin, sole-leather, or gutta-percha. Early and judicious passive motion was as essential at the proper time as the fixed dressing.

DR. GORDON illustrated a method whereby constant extension might be made by a hinged wooden splint, binding upon the anterior surfaces above and below the joint, a stiff flat spring of metal or gutta-percha.

DR. GERRISH spoke of the necessity of treating certain forms of this class of fractures by straight position and plaster splints.

JUNE 13TH, SECOND DAY.

MORNING SESSION.

DR. O. A. HORR, of Lewiston, presented the report of the committee appointed to visit

THE MEDICAL SCHOOL OF MAINE.

The school and its interests were commended to the members of the profession, and a favorable report made of the work accomplished in the several Chairs. A change of location from Brunswick to Portland was urged, to be brought about as soon as practicable for the sake of the increased clinical advantages offered by the hospitals and dispensaries of the city.

DR. E. E. HOLT, of Portland, read a paper upon

DISEASES OF THE MASTOID,

in which he gave the statistics of forty cases from private practice, in two thousand cases of diseases of the ear, showing that the left ear was involved three times as often as the right. The treatment was embrocations, hot-water poultices, leeches, Wilde's incisions, and perforation of the bone according to the indications. As regards results, twelve males and six females were recorded as cured, four each as "improved," "unknown," "not treated," and "died." Seven remained under treatment. In two cases of death, the purulent condition was such that nothing was done. In one, an operation was advised, but refused, and the patient died after exhibiting cerebral symptoms. In the other case, the disease came on in the latter part of pregnancy in connection with acute suppuration of the tympanum, and in the absence of pronounced indications for opening the mastoid, or even using Wilde's incisions, operative interference was deferred until a prominent swelling appeared at the root of the zygomatic process, when an incision liberated pus and revealed a rupture of the bone; a fatiguing gestation, difficult labor, exhausting inflammation and suppuration of the tympanum and mastoid brought on a fatal termination.

Several preparations of the temporal bone were exhibited, showing the anomalous course of the lateral sinus, and indicating the care necessary in drilling this bone. Several sequestra removed by operation were shown, and a part of the cochlea which had ulcerated away in connection with mastoid disease, the patient making good recovery.

DR. A. H. BURBANK, of Yarmouth, read a paper on

THE INDUCTION OF PREMATURE LABOR

for those cases in which, if allowed to go on to the full term, it is reasonably sure that delivery must be effected by craniotomy, or version, or abdominal section. It is demanded when there is a conjugate diameter of the brim so small as two and one-half to three and one-half inches. When that diameter does not exceed two inches and one-half, or two inches and three-quarters, the time of operating must not be later than the end of the seventh month. The operation should not be deferred beyond the end of the eighth month when the conjugate diameter is not more than three inches and a half. Rare and exceptional cases may require it before this period, but it would then be resorted to wholly in the interests of the mother, and with but a faint hope of saving her offspring.

Manual and instrumental methods of pelvimetry were compared, the necessity for the obstetrician to gain all possible information from his patient as to any history of defective ossification, and the character of previous labors, if a multipara, was insisted upon. Two cases were detailed in which, by his method, the Doctor had safely delivered in the one case two children now living, one at seven, the other at seven and a half months of pregnancy; craniotomy having been performed in an earlier labor. In the other case, a child, now living, was delivered at seven months and three weeks. This patient had previously been delivered by perforation in her first, and by forceps at seven months in her second and third pregnancies, of living children, both of which survived for a few weeks.

The method of procedure was then detailed as follows: "Directing the patient to lie upon her left side, I strongly depress the uterine globe, with the right hand upon the fundus uteri, while I pass the index finger of the left hand through the os. Then, with the finger slightly bent and its palm towards the symphysis pubis, I steadily draw the cervix in that direction, and expect, in a half hour, to have a dilatation the size of a half-dollar or more. Some labor-pains are generally caused by each attempt to dilate, but they will soon cease. Deeming it unfortunate for labor to be induced before thorough dilatation and dilatability are secured, and for reasons to be hereafter given, not expecting or desiring labor to follow for some days, I leave the case for twenty-four hours, and at the next and at subsequent visits the os is more easily reached (always with the left hand), and I am able to effect further dilatation by drawing the os toward the symphysis, first with one finger and as soon as I can with two and three fingers; or after three attempts at dilatation, two fingers in the os can be separated from three to four inches, and sufficient dilatation has been secured to warrant inducing labor-pains. I have then given somewhat less than a fluiddrachm of extract of ergot, each five hours until labor has commenced. If at the end of twenty-four hours labor is not induced, it has been sufficient to increase the dose to one drachm at the same intervals. For this purpose, and administered in this way, ergot has seemed an available agent and entirely safe for mother and child."

In explanation of these methods it was insisted that their value lay in a very *slow* and *patient* use of means in the preparatory stage.

With respect to the use of bougies, and the practice of allowing them to set up uterine action by remaining in the uterus some specified time, the writer could not appreciate the advantage of uterine action before dilatation, rather than after it.

Artificial dilatation, as described, is a comparatively painless operation; over other methods it has the advantage of being as fully efficient, less painful, does not confine the patient to her bed beyond the half hour in each day required for the operation, and permits her to be about her ordinary employment until labor begins.

In exceptional cases (puerperal eclampsia), when the saving of time is an element, a more rapid and persistent manual dilatation aided by Barnes' dilators is effective.

The time occupied by Dr. Burbank in inducing labor, has been from two to four or five days. This length of time is to be preferred, for in an unnatural process the tissues are taken by surprise and the operator must accommodate himself to them; hence, it is better to be satisfied with a good result even if arrived at slowly. After the initiatory steps in dilatation have been effected, a change in the vagina, vulva, and perineum will be appreciable, and the difference between the termination of this induced labor, and one conducted by nature will be slight.

Experience has shown no danger to the mother in eleven operations; in each case, except one delivered by forceps, the labors have been short, without accident, and in all respects natural. The convalescence has been invariably, speedy, sure, and without apparent danger.

The same assurance of safety cannot be bestowed upon the children. Of eleven born permaturely, ten were born alive; of this number, one which came at

six and a half months lived but three days; seven of the remaining nine were born at seven months and over, and are now alive. Extra care should be bestowed upon these prematurely born children; thick wraps of cotton should be prepared for enveloping them, and the usual ceremonies of washing should be dispensed with; the limbs should be often examined, and if necessary, exposed to heat from an open fire, stove, or register; washing ought to be prohibited until the child shall arrive at that age at which it would have been born; instead, daily anointing the whole surface with mild unguents, and removing gently portions thereof, must suffice for cleanliness. Till these immature infants cease to live upon borrowed time, they must be kept enveloped in the cotton wrap.

DR. MITCHELL, Prof. of Obstetrics in the Medical School of Maine, agreed as to the value of manual dilatation, as a means of inducing labor, but preferred the insertion of a bougie to ergot; he would especially recommend Dr. Burbank's method in *all* cases of placenta prævia, and had seen a case of obstinate chorea, in a pregnant woman, relieved and cured by this procedure.

DR. GORDON saw serious objections to such manual interference with the cervix, and condemned the use of ergot as dangerous to mother and child in first and second stages of labor, and uncalled for in the third stage, unless for hemorrhage.

DR. J. T. DANA gave an interesting review of the several forms of

BRIGHT'S DISEASE,

considering pathology and symptomatology and treatment of those conditions known as tubal nephritis, amyloid kidney, and cirrhotic kidney.

PROF. MITCHELL, of Brunswick, believed that the prognosis of chronic Bright's disease is becoming more favorable. His success had been largely due to the milk treatment, and he had seen marked benefit from the use of chloride of gold in the cirrhotic form.

DR. PENDLETON reported a fatal case in which, at the post-mortem, a marked cirrhotic condition of the kidney was found, but the patient had exhibited no prominent symptoms except neuralgia of the orbit, a small amount of albumen, and a few casts, until a day or two before death; there was no œdema, no effusion.

DR. J. A. SPALDING, of Portland, read part of the testimony in a suit for malpractice in

A CASE OF INJURY TO THE EYE.

The plaintiff's eye had been destroyed by a thrust from a cow's horn, and (as the plaintiff maintained) so badly treated by the defendant physician, that sympathetic ophthalmia ensued and destroyed the sight of the other eye. The jury gave a verdict for defendant on the ground that an ordinary physician could not be expected to know all about such cases. The jury may also have been influenced by the opinion expressed by several medical men and specialists, that if the defendant told the plaintiff's friends of the danger of sympathetic ophthalmia and urged enucleation, he did his duty and ought not to be held responsible. The essayist then proceeded to examine the case in its various details, and to show briefly the generally accepted ideas of treatment and the indications for enucleation after injuries of the eye. Every eye that experience teaches us is liable to set up sympathetic ophthalmia ought to be removed at once.

Three cases of injury to the eye from a cow's horn were compared: in one, sympathetic ophthalmia destroyed the fellow eye; in a second, the sight was partially destroyed by sympathetic ophthalmia but was already improving rapidly when enucleation of the injured eye was made for the relief of exquisite pain; in the third case, the injured eye recovered excellent sight without treatment, although both iris and lens were thrust out, while the fellow eye was never sympathetically affected. These results in cases so similar, tend to show the extreme degree of doubt that must ever prevail in cases of injury to the eye. Every physician should therefore decide at once what he is to do, and if in doubt, consult the larger experience of the specialist.

AFTERNOON SESSION.

Drs. Ayer, of Boston, and Colony, of Fitchburg, delegates from the Massachusetts Medical Society, were introduced.

The Association then proceeded to the

ELECTION OF OFFICERS FOR 1883.

President.—Dr. O. A. Horr, of Lewiston.

Vice-Presidents.—Drs. L. W. Pendleton, of Portland, and D. E. Marston, of Monmouth.

Recording Secretary.—Dr. Charles D. Smith, of Portland.

Corresponding Secretary.—Dr. J. O. Webster, of Augusta.

Treasurer.—Dr. A. S. Thayer, of Portland.

Board of Censors.—Drs. H. N. Small, of Portland; W. K. Oakes, of Auburn; J. M. Bates, of Yarmouth; W. B. Cobb, of Standish; and J. D. Nutting, of Hallowell.

DR. M. C. WEDGEWOOD, of Lewiston, then delivered

THE ANNUAL ORATION,

his subject being *Rational Medicine and Quackery.*

Rational medicine was defined as a practice founded on reason; that system of practice which appeals to and which can be comprehended by our reasoning faculties. It discards all "pathies;" it refuses to admit or recognize any man who adopts exclusive ideas as to the theory of disease or methods of cure. It collects, systematizes, and utilizes every grain of truth, and conceals or treasures for exclusive use nothing. Quackery flourishes from an inherent weakness of the human mind; it is the stamp of ignorance and superstition, and belongs to all trades and professions. No field is so wide for its cultivation as that of medicine; and we find it practised by men who have diplomas and belong to reputable medical societies, as well as by pretenders. We offend against rational medicine by the practice of such habits as detract from the dignity and honesty of an honorable profession.

DR. B. F. STURGIS, of Auburn, reported a case of

CHRONIC ABSCESS OF THE TIBIA

relieved by perforating. Having broken the central pin of his trephine, the operator used a gouge and chisel, and evacuated pus from two cavities, one, two inches long and three-fourths of an inch wide, near the head of the bone, below the anterior surface; the other below, of about the same size, and separated from the first by a dense septum of bone. The cavities were washed out with carbolized water, and packed with oakum and balsam of Peru. Recovery was rapid and without unusual symptoms.

ABNORMALITY OF THE BLADDER.

DR. F. H. GERRISH, of Portland, reported a case in which the bladder was divided by a vertical septum into two nearly equal portions. A sound easily reached a stone in the posterior chamber, but a lithotrite with its shorter beak failed to reach it, slipping always into the anterior cavity. After prolonged efforts with the lithotrite on two occasions, lateral lithotomy was performed and the calculus extracted. The patient, though seventy-five years old, did not have an alarming symptom after the operation.

THE COMMITTEE ON THE PRESIDENT'S ADDRESS

reported, through the Chairman, Dr. S. H. Weeks, the following:

Resolved, That the sanitary interests of this State imperatively call for the establishment of an efficient State Board of Health.

In accordance with this resolution it was urged that a committee of three be appointed, with power to add to their number, and instructed to make all needful investigation and present the subject to the next Legislature with the request that such action may be taken as deemed best for the health and prosperity of the people of our State.

Resolved, That it would be for the interest of this Association to have presented at each annual meeting all advances made during the previous year in materia medica.

In accordance with this resolution we recommend the appointment by the Board of Censors of a committee on new remedies.

DR. HORR, of Lewiston, a member of the last Legislature, gave some interesting facts with reference to the rejection of the bill to secure

MEDICAL REGISTRATION.

The bill had its origin in the Androscoggin County Medical Society. Physicians throughout the State were invited to coöperate to secure its passage. Everything seemed favorable at the hearing before the legislative committee; opposition came from eclectics and spiritualists through the country members. The bill was subsequently amended to a condition hardly better for the regular profession than no bill at all. It passed a second reading in the House, was amended in the Senate, then refused concurrence by the House; the Senate adhered to its action, and a State Legislature which has incorporated almost anything asked for in the way of hybrid medical colleges and bogus literary societies, strangled a measure which, if not in all respects perfect or satisfactory, would have been a step towards legalizing and protecting the honorable practice of medicine.

EVENING SESSION.

DR. S. C. GORDON, of Portland, read a paper on the

RESULTS OF SOME OF THE OPERATIONS FOR ACCIDENTS OCCURRING AT PARTURITION.

The points emphasized in this paper were:

1. The importance of operating for a definite purpose. The various accidents are sooner or later followed by certain well-marked symptoms, and unless the operations are performed with special reference to relief of such symptoms, the patient is not benefited; a mere closure of a lacerated cervix is by no means a cure of the symptoms arising therefrom. To insure the greatest possible success, the complete removal of all cicatricial tissue must be made along the entire length of the laceration.

2. That the operation for cystocele has proved extremely efficient and satisfactory when the ovoid-shaped denudation has been made, removing as much tissue as will allow a coaptation of surfaces without undue strain upon the sutures, and care is taken that all hemorrhage ceases before uniting.

3. That removing a V-shaped portion from each side of the cervix as high as the vaginal roof, and uniting the surfaces, is the essential step in reducing chronic alveolar hyperplasia of the uterus; if in connection with this we have retroversion, *it should be replaced at the same time*, and the uterus supported with a pessary until the operation of perineorrhaphy is made, when the pessary is to be removed. These points carefully observed, *cure retroversion in a very large percentage of cases*.

4. The extreme care necessary in making these operations:

a. In not operating for lacerated cervix while fungous growths remain in the uterus, or catarrh exists in the cervix.

He thought much time is often lost in preparatory treatment through fear of pelvic inflammation. When only neuralgic pain is left, the latter is not relieved until the operation is made.

b. In using no more sutures than are absolutely necessary to coapt the parts and stop hemorrhage. He believes many operations fail from neglect of this latter caution.

c. In never allowing the use of the catheter after any of the operations if the patient can pass the urine herself. Also in keeping the bowels open from the first.

THURSDAY, JUNE 14TH, THIRD DAY.
CLOSING SESSION.

THE REPORT OF THE BOARD OF CENSORS

recommended that the next annual meeting be held in Portland, on the second Tuesday of June, 1884; exonerated Dr. Calvin Seavey from charges preferred against him, on the ground that they were not sustained; asked for the passage of a standing rule requiring all candidates for membership to appear before the Board on the first day of the annual session, and produce diplomas or satisfactory evidence that they possess them; and made the following appointment:

Orator.—Dr. A. S. Hersey, of Oxford.

The report was accepted, and its recommendations adopted,

The PRESIDENT announced as

Committee on State Board of Health.—Drs. I. T. Dana, of Portland; J. M. Bates, of Yarmouth; S. H. Weeks, of Portland.

Committee on Medical Registration Bill.—Drs. O. H. Horr, of Lewiston; J. O. Webster, of Augusta; O. St. C. O'Brien, of Bristol; J. B. Walker, of Thomaston; A. R. G. Smith, of Whitefield.

After the customary votes of thanks, the Association adjourned, having completed one of the most satisfactory sessions for many years.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Stated Meeting, April 4, 1883.

THE PRESIDENT, ALFRED STILLÉ, M.D., IN THE CHAIR.

DR. J. SOLIS COHEN read a paper entitled

DOES EXCISION OF THE LARYNX TEND TO THE PROLONGATION OF LIFE?

That complete laryngectomy can be performed without sacrifice of life, he said, there is now cumulative evidence. That every operation involving the removal of the larynx imperils the immediate existence of the patient, the records of the procedure abundantly attest. That a very large proportion of the subjects operated upon, say nearly fifty per cent. of them, succumb within so brief a period that their deaths may be justly attributed to the operation, an examination into its statistics renders only too obvious.

The writer owns to a prejudice against the operation; he has never witnessed a laryngectomy, nor seen a patient upon whom it had been performed. It may seem rather an assumption on his part, therefore, to criticise an operation, of the technical procedure and after-management of which he is practically ignorant.

Let us consult the statistics of the operation, and contrast the average life of those who have been sub-

jected to it with the average life of patients, in similar condition, entrusted to palliative treatment.

I have before me, as I write, more or less detailed records of sixty-five operations of complete "extirpation of the larynx," as it is termed.

There are a number of partial excisions which have not been included in the number, because the partial operation is not within the scope of this paper.

Of the sixty-five complete operations, four were performed in non-malignant cases; one for cicatricial syphilitic stenosis, with death "some weeks after from pneumonia" [Watson]; one for necrosis, the case terminating fatally by marasmus five days after the operation [Rubio]; one for polypi of the larynx [Ruggi]; and one for papilloma of the larynx [McLeod].

Of the sixty-one operations remaining in this list, five were performed for sarcoma; in two of which the results were so remarkably exceptional, that attention should be especially directed to them.

I.—Bottini, of Turin, on Feb. 6, 1875, removed the entire larynx from a male subject twenty-four years of age, with a laryngeal sarcoma, partly round-celled, partly spindle-celled. Notwithstanding copious hemorrhage and severe erysipelas, the patient recovered. He was reported well in August, 1881, or more than six years after the operation, and I have seen no notice of his death. He had been performing the duties of a postman, and walking eight miles a day. This is the most successful case on record.

II.—Caselli, of Reggio-Emilia, on Sept. 20, 1879, removed the larynx, pharynx, base of the tongue, soft palate, and tonsils from a female subject, nineteen years of age, for a sarcoma of the larynx, pharynx, palate, and base of tongue. The patient was reported well in August, 1881, practically two years after the operation, and I have seen no notice of her death. This is the second best case on record.

The remaining three patients operated upon for sarcoma died at the periods of seven, fifteen, and seventeen and a half months respectively:

Table I.—Cases of Sarcoma.

1 (Lange) lived nearly 7 months.
1 (Czerny) " " 15 "
1 (Foulis) " " 17½ "
1 (Caselli) was alive Aug. 1881, nearly 2 years after the operation.
1 (Bottini) was alive and well Aug. 1881, 6½ years after operation.

Taking for granted, as we are bound to do, that death was imminent in these five cases of sarcoma when the operation was resorted to, we have a considerable prolongation of life in every instance, and a remarkable prolongation in two, or in forty per cent. As far as these limited statistics go, therefore, the operation of excision of the larynx in hopeless cases of sarcoma is worthy of the serious consideration of the surgeon.

The history of the remaining fifty-six operations presents a much more gloomy account. They were all for carcinoma, if we may include under that head Schede's case of "cancroid."

Let me read the list of deaths as far as reported:

Table II.—Recorded Deaths after Laryngectomy for Carcinoma.

1. Tilanus,	Death in	36 hours	from	collapse.
2. MacEwen,	"	3 days	"	pneumonia.
3. Bottini,	"	3 "	"	pneumonia.
4. Langenbuch,	"	3 "	"	collapse.
5. Schmidt,	"	4 "	"	collapse.
6. Gerdes,	"	4 "	"	collapse.
7. Billroth,	"	4 "	"	pneumonia.
8. Toro,	"	4 hours	from	pulmonary emphysema.
9. Schönborn,	"	7 "	"	?
10. Multanowski,	"	5 "	"	pneumonia.
11. Reyher,	"	5 "	"	septic broncho-pneumonia.
12. Pick,	"	5 "	"	pleurisy and pericarditis.
13. Reyher,	"	7 "	"	septic broncho-pneumonia.
14. Reyher,	"	7 "	"	septic pneumonia.
15. Watson,	"	7 "	"	pulmonary embolism.
16. Thiersch,	"	7 "	"	"secondary infectious" pneumonia.
17. Albert,	"	8 "	"	"diffuse bronchitis and lobular" pneumonia.
18. Reyher,	"	11 "	"	"hypostatic" pneumonia.
19. Reyher,	"	14 "	"	exhaustion.
20. Maas,	"	2 weeks	"	pneumonia.
21. Watson,	"	2 "	"	pneumonia.
22. Bircher,	"	16 days	"	pneumonia and "pulmonary gangrene."
23. Hahn,	"	25 "	"	putrid bronchitis.
24. Billroth,	"	6 weeks	"	passage of bougie into mediastinum.
25. Multanowski,	"	2 mos.	"	recurrence.
26. Gussenbauer,	"	2 "	"	tuberculosis pulmonum.
27. Multanowski,	"	3 "	"	"croupous" pneumonia.
28. Langenbeck,	"	4 "	"	recurrence.
29. Thiersch,	"	4 "	"	recurrence.
30. Novaro,	"	4 "	"	recurrence and hemorrhage consequent upon additional operative procedures.
31. Von Burow,	"	4½ "	"	sudden suffocation.
32. Czerny,	"	5 "	"	recurrence.
33. Volker,	"	5 "	"	suffocation.
34. Heine,	"	6 "	"	recurrence.
35. Maas,	"	6 "	"	recurrence.
36. Billroth,	"	7 "	"	recurrence.
37. Bruns,	"	9 "	"	recurrence.
38. Kosinski,	"	9 "	"	recurrence.
39. Reyher,	"	9 "	"	recurrence.
40. Czerny,	"	15 "	"	recurrence.

To this list may be added the cases of—

Margary, in which recurrence was reported at 3 months.
Kocher, " " " 7 "

In the following cases neither death nor recurrence has been reported:

1. Foulis, alive five weeks after operation.
2. Czerny, alive six weeks after operation.
3. Schede, artificial larynx adjusted two months after operation.
4. Mayal, no recurrence three months after operation.
5. Von Bergmann, alive "some" months after operation.
6. Wegner, alive seven months after operation.
7. Whitehead, "no recurrence;" alive eight months after operation.
8. Winniwarter, "no recurrence;" alive eleven months after operation.
9. Gussenbauer, well fourteen months after operation.
10. Kocher, no recurrence sixteen months after operation.
11. Thiersch, well seventeen months after operation.
12. Thiersch, well eighteen months after operation.
13. Gussenbauer, well nineteen months after operation.
14. Hahn, well two years after operation.

Of the forty reported deaths, seventeen, or forty-two and a half per cent., occurred within eight days, and five more succumbed within the second period of eight days.

The danger during the first few days is from shock and from pneumonia. Very few have perished from direct shock, very many from pneumonia. The pneumonia has been attributed generally to the ingress of blood, aliment, and septic materials into the air-passages; but if I may form an opinion from what I have witnessed in many other operations upon the neck,

there is a certain amount of risk of pneumonia in all surgical interferences in the cervical region, even when the air-passage is not opened. Thus I have seen it follow extirpation of the thyroid gland, extirpation of cervical neoplasms, and even exploratory incision into the region. It may be that the reduction of temperature to which the pneumogastric nerve is subjected, leads to pneumonia, and that the manipulations within the wound render it especially sensitive. When we reflect that the majority of these operations of laryngectomy consume from one to three hours in their performance, we can fairly presume that the pneumogastric nerve is subjected to sufficient ordeal to excite an early pneumonia, quite independently of access of foreign matter to the lungs; a sequel of the operation against which every available precaution is taken.

The danger from pneumonia does not seem to exist longer than two weeks, for we have but one record of death from this cause after the sixteenth day, and that from "croupous pneumonia," at the end of three months. This important fortnight safely passed, the life of the patient appears comparatively secure up to the fourth month. At the fourth month, death begins to be imminent from recurrence, and we have, in our table, three at four months, one, and possibly several, within five months, two at sixth months, one at seven months, three at nine months, and one at fifteen months. One death from recurrence is reported at two months after operation. Nine cases are reported living at seven, eight, eleven, fourteen, sixteen, seventeen, eighteen, nineteen, and twenty-four months, respectively. Thus forty-two and one-half per cent. of the forty cases recorded as terminating fatally, or more than thirty per cent. of the entire number operated upon for carcinoma, perished within eight days; and at the end of the six months, thirty-five of the forty were dead, or eighty-seven and one-half per cent., making sixty-two and one-half per cent. of the entire fifty-six operations for carcinoma; with great probability of a still higher percentage had all the deaths been reported.

Let us contrast this record with the average life of carcinoma of the larynx not subjected to the radical operation of laryngectomy.

Of a number of cases of carcinoma of the larynx under my own care, who agreed to submit to exsection of the larynx should I so determine, and in whom I performed tracheotomy in preference, one lived six months, two lived seven months, one lived thirteen months, and one lived eighteen months, respectively, after the tracheotomy.

Had laryngectomy been practised in these five cases, with equal tenure of existence, the result would have been accredited to the radical procedure. Had the operation been performed, one life might possibly have been prolonged; the majority, however, would probably have been shortened. At the period at the end of which eighty-seven and a half per cent. of the recorded deaths after larygectomy had occurred, *i. e.*, six months, all my tracheotomized cases were living; and but two of the entire number of fifty-six excisions for carcinoma outlived the longest-lived instance in my tracheotomized list. It is not improbable that a complete series of collated statistics would present a far better exhibit for the cases merely subjected to tracheotomy and palliative procedure. It is generally believed that the natural history of carcinoma of the larynx comprises an average existence of about two years and a half; tracheotomy becoming requisite at a period varying from nine to eighteen months, according as the disease is wholly intra-laryngeal or more parietal.

In laryngectomy, the initial shock is severe, and sure to carry off a large percentage of cases by collapse, or by pneumonia. A certain number of lives are sacrificed; and the condition of the survivors, with their artificial substitutes for the larynx, is often described as pitiable in the extreme.

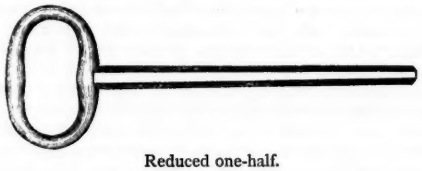
In tracheotomy, there is little shock, very slight danger of pneumonia, and much less risk of septic infection. Life is not likely to be sacrificed in any instance; and existence is much more comfortable after the operation than after laryngectomy.

For these reasons, excision of the larynx for carcinoma does not, in my opinion, tend to the prolongation of life; for the prolonged existence of a very few, seems purchasable only at the sacrifice of the remnants of existence of many others. The greatest good to the greatest number, appears better secured by dependence on the palliative operation of tracheotomy.

DR. W. B. HOPKINS described

A SIMPLE CONTRIVANCE FOR ROLLING BANDAGES.

It consists of a Coats' key having an eight-sided shaft four inches long, such as is used in the ordinary bandage-machine. The shaft tapers from one-quarter of an inch in diameter at the shoulder to one-fifth at the tip. The tip is made quite smooth in order to revolve easily in the palm of the hand.



Reduced one-half.

After fixing the terminal extremity of the bandage upon the shaft, the key is made to revolve by the right hand, the left holding the tip of the instrument in its palm, guiding the bandage, and giving the requisite tension.

THE PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Conversational Meeting, April 26, 1883.

THE PRESIDENT, JAMES TYSON, M.D., IN THE CHAIR.

DR. CHARLES K. MILLS read the paper of the evening, on the

METHODICAL EXAMINATION OF THE BRAIN,

which was amply illustrated by diagrams and specimens prepared by Dr. Mills, and also by a series of preparations from the Mütter Museum of the College of Physicians of Philadelphia.

Dr. Mills passed by with brief allusions the examination of the scalp, skull, and membranes of the brain, the cerebral spaces and vessels, and the best methods of determining volume, specific gravity, and cranial capacity. His chief object, he said, was to discuss and demonstrate the proper procedures to be pursued in methodically examining the surface and interior of the brain after the removal of its envelopes, for the purpose of discovering and accurately localizing lesions.

In order to make an autopsy of the brain proper in a rapid, methodical, and scientific manner, he considered several requirements necessary:

1. The superficial topography of the brain should be understood. The examiner should be able to pick out without hesitation the chief fissures and convolutions. He should also, of course, be perfectly familiar with the numerous superficial subdivisions of the base of the cerebellum.

2. The variations in the size, direction, or arrange-

ment of cerebral fissures and convolutions most likely to occur, should be known to him. Age, race, individual type, education, and other causes, act to produce variations and anomalies. The student thoroughly familiar with the diagrams and demonstrations of Ecker might find himself at sea in his first examinations if this fact is not remembered.

3. A knowledge of the internal structure of the brain should be possessed by the operator. He should understand not only its ventricles and horns, its commissures and peduncles, its foramina and aqueducts, but also its medullated structure, as exhibited by sections of the cerebral and cerebellar hemispheres made in various directions. Methodical cerebrotomy, practised in the vertico-transverse, vertico-longitudinal, horizontal, and even in other directions, will give certain more or less fixed appearances, which should be familiar.

The surface of the brain should be thoroughly examined for morphological peculiarities, such as deficiency or excess of fissures and gyri, confluence of fissures, simplicity or complexity of folds and furrows; and also, of course, for pathological changes, for atrophy, softening, hemorrhages, changes of color, etc. Dr. Mills described the fissures and convolutions as given by Ecker, and also called attention to some of the most common and striking variations from the usual type of the adult human brain, dwelling particularly on the fissures most likely to be confused—the precentral, central, and retro-central, etc. The views and observations of Moritz Benedikt on the brains of criminals were referred to and criticised.

The examination of the fissures, convolutions, cranial nerves, and various regions of the surface of the cerebrum and cerebellum having been completed, the interior of the brain should next claim attention. The examination should be made in such a way as to cause as little disturbance as possible of the relations of parts by the incisions, and to allow, if desired, that the brain be brought together again after the autopsy and preserved as a whole. This could be done so as to submit every cavity, canal, part, and structure to comparatively minute exploration. Some cerebrotomists, as Bitot, without stopping to investigate particularly the various cavities and subdivisions, at once proceed to divide the brain into blocks by large incisions made at carefully selected points.

The advantages of each of the three forms of sections—vertical transverse, vertical antero-posterior, and horizontal—were pointed out. The vertical transverse sections are the most generally useful. What are known as the middle transverse, mesolobar, or cortico-central zones are most important to understand. These comprise all the cerebral mass situated between the anterior and posterior extremities of the corpus callosum. Bitot describes and figures seven of these zones. Sections and diagrams were exhibited by Dr. Mills, and the places and methods of making these sections were explained.

The particular convolutions, and the regions of the ganglia, cerebrum ovale, capsules, etc., traversed by these sections were shown. The ganglio-insular region was particularly described. This region includes a large portion of the island of Reil, of the optic and striate ganglia, of the external and internal capsules, and of the external wall. The importance of having at command a fixed nomenclature for the various planes and regions was dwelt upon. Following the method of Bitot, the surfaces exposed by the sections were divided into a superior, inferior, and middle division, and these were studied. A diagram representing the relations of the middle portion of the brain to cranium was shown and explained.

Dr. Mills said that he preferred to open the brain so as to expose its ventricles, horns, and parts, and examine each as nearly as possible in its integrity. By his methods, such structures as the corpus callosum, septum lucidum, tænia semicircularis, velum interpositum, choroid plexus, fornix, foramen of Munro, pineal gland and its peduncles, etc., could be, each in turn, investigated for lesions.

After the cavities and horns had been exposed by proper incisions, methodical cerebrotomy, as advised by Charcot and Pitré, or Bitot, could be practised, the cuts being made from within outwards, but not quite through the brain, so that the whole mass could be drawn together again after the cut surfaces had been examined.

Dr. Mills described three of the best methods of opening the brain;

1. At the base, by taking as guides certain fissures and other anatomical landmarks.

2. From the upper surface, by incisions through each side of the corpus callosum, or along the lower borders of the calloso-marginal fissures.

3. By dividing the brain into two symmetrical halves by a careful median section. This should only be done after the parts in the median line had been previously explored.

DR. SHAKESPEARE said that he would like the author to state why he prefers to open the brain from the base rather than from above. Dr. Shakespeare thought that by opening from above, the floor of the lateral ventricles would be better explored, which contain the large ganglia of the brain, and a better topographical view would be obtained.

The most usual cause for which the brain is examined is apoplexy. In these examinations it is necessary that very thin sections shall be made so that all parts can be carefully examined. Dr. Mills has already pointed out the desirability of making these sections in such a manner that none shall be detached, so that when the examination is over all can be readily replaced still leaving the brain practically in one piece. I believe that these two objects can better be obtained by making the examination from above as taught by Prof. Orth (*Compendium der Pathologisch Anatomischen Diagnostik*) than by making it from below. The only part capable of holding the sections together is the cortex with its adherent vessels. Prof. Orth advises making a longitudinal section towards the cortex on a level with the corpus callosum. This section is made deep enough to cut the cortical convolutions half through. This leaves enough tissue to keep the part attached. The anterior horn, the ventricles, and posterior horn are laid open by a second incision. Transverse cuts as thin as desired are then made in the side-pieces. These cuts go half way through the cortex. The large ganglia are then sliced transversely, beginning at the front and going backwards. These are also made to go half way through the cortical substance of the base and so on. The examination being finished the parts can all be folded together like the leaves of a book, not a single piece having been detached. The only way I can see of making thin sections of every part of the brain by the other method is to divide it into two lateral halves, and then making your sections towards the cortex, for if the sections be made directly across the brain the parts in front of the corpus callosum and behind the peduncles will be entirely detached.

Another objection is that seven sections are too few, and if it is desired to have more, it will be a difficult task to hold the already cut sections in one hand and split them with the knife held in the other.

DR. BARTHOLOW preferred to open the brain from above for similar reasons to those assigned by Dr. Shakespeare.

DR. ESKRIDGE expressed a preference for the older method.

DR. MILLS then closed the debate by reiterating and amplifying the arguments contained in his paper.

MEDICAL ASSOCIATION OF CENTRAL NEW YORK.

Sixteenth Annual Meeting, held at Syracuse, May 15, 1883.

(Specially reported for THE MEDICAL NEWS.)

THE Sixteenth Annual Meeting of the Medical Association of Central New York was held at Syracuse, May 15, 1883, the President, DR. THEODORE DIMON, of Auburn, in the Chair.

The PRESIDENT then delivered

THE ANNUAL ADDRESS,

and took for his subject, "Is Medicine a Science?" He explained the difference between fixed or certain science, and theoretical or hypothetical science. He claimed that medicine is a theoretic science, and reviewed its progress from its establishment in Greece by the Asclepiadæ to the present time.

DR. A. CLIFFORD MERCER, of Syracuse, exhibited specimens of the

BACILLUS TUBERCULOSIS,

and made some remarks on the subject.

The *bacilli* shown were made evident by the following process: From a cup containing the sputa of a tubercular patient a small portion was removed by means of forceps and placed upon a thin piece of glass, such as is commonly used by the microscopist to cover his specimens. A second cover-glass pressed down upon the sputum, and then removed, caused the sputum to lie in a thin layer upon the first cover-glass. This first cover-glass, with its layer of sputum, was then thoroughly dried and slightly heated over the flame of a Bunsen burner to coagulate the sputum and fix it to the glass supporter for subsequent treatment. The sputum with its supporter was dropped into a watch-glass containing a solution of magenta in water and alcohol, rendered slightly alkaline by caustic potash, and was allowed to remain in this staining-bath fifteen minutes. It was then taken out, washed under a small stream of soft water to remove the excess of magenta and dropped into a watch-glass of diluted nitric acid to dissolve out the last remnant of magenta stain from every object in the sputum excepting the *bacilli tuberculosis*. It was again washed under the soft-water tap and then dropped into a neutral bath of aniline violet for fifteen minutes to tint the objects bleached of their magenta stain and thus cause the magenta-stained *bacilli* to show more plainly. It was then put successively into baths of ordinary alcohol and absolute alcohol, was dried, carefully flooded with a drop of oil of cloves and finally dropped sputum-side down upon a drop of Canada balsam on the centre of a microscopist's glass slip, three inches by one inch. After the Canada balsam had become hard, a ring of shellac dissolved in alcohol was applied about the edge of the cover-glass to prevent the oil of cedar, used later in examining the specimens under the microscope, penetrating beneath the cover-glass and destroying the specimens.

The foregoing process is partly that used by Koch, of Berlin, the original discoverer of the *bacilli tuberculosis*, and partly that modification of the Koch-Ehrlich process used by Gibbes, of London. This mixed process has, happily given excellent results, but was only ventured upon because in Syracuse it is not possible as yet to obtain all the necessities for the Gibbes' process, which is generally thought to give the best results.

DR. VAN DE WARKER, of Syracuse, reported a case of *Cancer of the Uterus*, and exhibited specimens.

DR. F. A. MANDEVILLE, of Rochester, read a paper on

APHONIA.

Cases due to laryngeal catarrh or over-exertion of the voice usually yield quite readily, he said, to treatment, which should consist in complete functional rest, the application of astringents and sedatives to the larynx, and of electricity direct to the muscles, effected by means of Mackenzie's electrodes, under guidance of the laryngeal mirror. Cases due to pressure by enlarged glands should be treated by counter-irritants externally and alteratives internally. The galvanic current sometimes proves of signal value in these cases.

Aphonia due to anæmia yields readily to general treatment. In hysterical cases, the methodical exercise of the voice, mechanical irritation of the mucous membrane of the vocal cords, or the application of the galvano-faradic current direct to the vocal cords was recommended. The results from this latter procedure are sometimes very gratifying, as often a single application of electricity to the vocal cords will restore a voice that has been lost for months or years. The relief is not always permanent from a single application; but the continuation of this treatment every two or three days will effect a cure. Hypodermic injections of strychnine, in doses of $\frac{1}{64}$th of a grain to commence with, and increased as necessity requires, are also often followed by good results. They should be repeated every three or four days.

For organic aphonia, no definite plan of treatment can be laid down, Electricity is often beneficial even in incurable cases. Constitutional treatment depends upon the nature and origin of the disease. Tracheotomy is indicated when stenosis of the glottis exists, or is imminent, as in cases of paralysis of the abductors.

DR. F. M. HAMLIN, of Auburn, read a paper on

MICROSCOPIC EXAMINATION OF SEMINAL STAINS.

He stated that after trying the different methods suggested by various authorities, he simply soaked the cloth on which the semen had dried in water, when the spermatozoa could be pressed out and examined.

DR. WM. F. SHEEHAN, of Rochester, read an interesting paper on *Chickenpox in the Adult*. He referred to the difficulty in some cases in diagnosticating varicella from variola, and he reported a number of cases of mistaken diagnosis. He claimed that one source of error was the fact that many writers of authority stated that varicella was a disease exclusively of childhood.

DR. C. O. BAKER, of Auburn, read a paper on *Restoration of the Peritoneum*.

DR. J. P. CREVELING, of Auburn, read a paper on *Sarcoma and Lympho-sarcoma of the Neck and Tonsils*.

DR. J. O. ROE, of Rochester, also read a paper on the same subject.

DR. CHAS. S. STARR, of Rochester, reported a case of *Pyonephritis*, which he saw under Dr. Billroth's care in Vienna.

DR. W. H. BROWN, of Syracuse, presented a patient from whose right eye he had removed a piece of iron by a magnet.

DR. DIMON, Chairman of the Committee appointed at the last meeting on the care of the insane, presented their report, which was signed by the committee, DRS. DIMON, BUTTON, and HERRIMAN, and it was unanimously adopted.

DR. W. S. ELY, of Rochester, reported an interesting case of *Post-partum Hematocele.*

DR. CALVIN, of Clyde, reported a

CASE OF TAPEWORM,

in which he succeeded in expelling the parasite by male fern, after having tried the pumpkin seed in vain.

The following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—DR. CHARLES S. STARR, of Rochester.

First Vice-President.—DR. J. P. CREVELING, of Auburn.

Second Vice-President.—DR. ELY VAN DE WARKER, of Syracuse.

Secretary (three years).—DR. J. N. ARNOLD, of Clyde.

Treasurer (three years).—DR. ALFRED MERCER, of Syracuse.

Censor to Medical Department of the Syracuse University.—DR. RICHARD M. MOORE, of Rochester.

The Society then adjourned.

CORRESPONDENCE.

LETTER FROM PRAGUE.

The Hygienic Exhibition at Berlin—Prague from a Pathological Standpoint—Sword-swallowing and its Pathological Results.

AFTER a pleasant sea-voyage and ten days' travelling in Germany, I reached this place just three weeks ago. I was, of course, particularly interested in the hygienic exposition in Berlin, and spent three most delightful days there, chiefly in the pavilion of the "Gesundheitsamt," *i. e.*, health office of Berlin. All of the apparatus used by Koch in his investigations was exhibited, as well as pure cultivations of every known species of bacteria. The methods of work, etc., were fully explained by one of the assistants from the office, detailed there for that purpose. The macroscopic differences—differences in mode of growth, in color, in effect on the gelatine, and in the various bacteria—could be well studied in the test-tubes in which they were exhibited, these macroscopic differences being in many cases more valuable as a means of differential diagnosis than the microscopic, just as, in many cases, plants will present more differences when growing in a mass than will be seen on closer analysis of the individuals. Of course this collection included cultures of the tubercle-bacillus, as well as of the last bacillus that has been made known to us through this office—viz., that causing the "Rotz" farcy. This form presents both macro- and microscopically much similarity to the tubercle-bacillus, as does indeed the farcy nodule to the tubercle, but there are sufficient points to make a diagnosis tolerably easy.

In another room of the pavilion, charts were exhibited which showed at a glance the mortality for each year of life in the different districts in Germany. The mortality was represented by the different shades of red, a light pink being the most favorable, and from this the color deepened to very dark red, Bavaria being mostly painted so dark that but little of the red tinge could be seen. Munich, where one would think the beer alone would offer sufficient inducement to the people to stay there forever, to say nothing of other inducements, such as music and art, seemed to head the mortality list.

Another room showed the methods used in analyzing water—not as to its chemical constituents, but as to the number and nature of the germs contained in it.

In the Austrian department were a series of tables showing the comparative mortality of the zymotic diseases in Vienna, before and after the introduction of the Hochquelle water, in 1873. The decrease brought about in the number of cases of diphtheria and typhoid was most striking.

It makes an American always feel a little badly to see in another country such an institution as this Berlin health office; to think of the great and good work which is being done there in the cause of science and humanity (for they always go together), while we, although ready to reap the results of all work done elsewhere, contribute so little to the general cause. Well, quite a number of us pride ourselves on being too practical to devote our time to such work, but looking at it in its narrowest view—strictly a monetary one—it pays. The decrease in the number of cases of anthrax in cattle, due to the discovery of the etiology of the disease and the conditions of its spread, has been more than sufficient to pay all costs of conducting the institution, for which the German Government gives nearly $50,000 annually.

From a pathological aspect, the fine old city of Prague is perfect. True, people with æsthetic noses might feel badly in some of the streets, and capricious stomachs might rebel at some of the food one has to partake of, but for the study of pathological anatomy it is perfect. A population of 240,000, and last week 214 deaths. Typhoid fever, dysentery, and other intestinal affections make up a large part of the autopsies. The typhoid here, as seen in the Pathological Institute, is almost always perfectly typical, and indeed I often think if post-mortems were made more carefully and extensively with us, a good many of those wonderful atypical cases of typhoid, typho-malaria, etc., could be cleared up. Possibly, too, we would then have more cases of acute tuberculosis, and not so much typhoid.

There is no typhus here as yet, but in the present health relations of the place—the poverty, filth, and general malnutrition of the lower classes—it may pretty safely be reckoned on in the winter. The great prevalence of typhoid is probably due to the bad water, that from several wells being in fact known to be infectious.

The old adage that it never rains but it pours seems often well illustrated in medicine. Sword-swallowers are known to be comparatively rare everywhere, and autopsies on them in consequence of injuries received while pursuing their lawful occupation, are still rarer; yet last week we had two of them in the Institute. One especially was a very remarkable case. The subject was a young man of eighteen, tolerably well nourished. The sword he used had been long in the family—was in fact a sort of *sabre de mon père*—and for a number of years had been used in this peaceful manner. This constant use had weakened the weapon, so that when, after swallowing it, the young man made his usual stiff bow to the public, it broke, the handle and several inches dropped out, the rest remained. The father, who was also a renowned artist in this line of work, immediately thrust another sword down the boy's throat, to see what had become of the first, and to facilitate its passage into the stomach in case it had become lodged in the œsophagus. After this, the boy was given violent emetics, then swung up by the heels, but to no purpose, and finally was sent into the hospital. By palpation, the piece of sword could be felt in the stomach, but it was not possible in any way to get it lengthways between the hands. Prof. Gussenbauer operated, and drew out a piece of steel 27 centimetres (10½ inches) in length. After a few days, the boy was post-mortemed, and it was found that the operation wound had completely healed, but that a circumscribed peritonitis had taken its origin from another part of the stomach. Here was a perforation,

and a dark line extended from this across the stomach and up the œsophagus to a laceration. The explanation was easy; the piece was too long to pass entirely into the stomach; so one end had rested there, the other remaining in the œsophagus. As the œsophageal end was jagged, it could not move up, and in consequence of the violent emetics, and the turning up side down, lacerations had been made at the two points.

The other case was more simple. This man, an uncle or some relation of the first case, lacerated the pharyngeal wall; a violent phlegmonous inflammation of the surrounding parts was set up, and his death was caused by this in a few days.

It remains to be seen whether this interesting family will contribute anything more to our knowledge of the pathological possibilities of sword-swallowing. I only mention these two instructive cases on account of the practical points they involve.

W. T. C.

PRAGUE, June 14, 1883.

A SUPPLE TONGUE.

To the Editor of THE MEDICAL NEWS.

SIR: Last winter, a gentleman, who happened in my office with one of my patients, asked me what I thought of the possibility of passing the tip of the tongue behind the palate into the vault of the pharynx. I told him I thought it might be possible, but extraordinary, whereupon he proceeded to demonstrate it by slowly turning the tip of the tongue backward and carrying it behind the edge of the palate to the vault of the pharynx. He said that he had first attempted the feat for the purpose of dislodging collections of mucus from the post-nasal space. It required considerable practice, and at one time, while learning it, he had been seized with a spasm of the muscles of the tongue that nearly choked him. He now accomplishes it as easily as the protruding of the tongue from the mouth, and he has acquired so much dexterity that he can tell accurately the condition of the turbinated bones as to swelling.

The catarrhal condition which first caused him to practise this method of freeing the parts has entirely disappeared, and now nothing abnormal can be seen either in the pharynx, palate, or tongue, excepting some swelling of the turbinated bones at their posterior ends. Respectfully yours,

E. FLETCHER INGALS, M.D.

CHICAGO, June 25, 1883.

NEWS ITEMS.

BALTIMORE.

(*From our Special Correspondent.*)

THE CHEMICAL LABORATORY OF THE JOHNS HOPKINS UNIVERSITY has recently been completed, and formally opened by Prof. Remsen. The building covers a space of about 100 x 50 feet, and consists of three stories and a basement. It is constructed of pressed brick and Cheat River bluestone, and while making no pretensions to architectural effect is nevertheless a handsome and substantial-looking edifice. In the basement are the storerooms for apparatus, two large rooms fitted up for assaying and other furnace-work, and rooms intended to be used for operations upon a large scale. There are also two large steam-boilers which heat the chemical laboratory and the adjoining biological laboratory, which is now in course of erection, and will shortly be completed.

The main entrance to the laboratory is upon the first floor, and adjoining the entrance are, on the left the "gas-analysis" and "photometric" rooms, and on the right, "laboratory A," a large room 30 x 32 feet, supplied with desks for 40 "minor-course" students; each desk is supplied with gas and water, shelves for reagent bottles, and drawers and a cupboard for apparatus, etc.

The gas-analysis room is, as its name implies, designed for operations with gases. It is a well-lighted room with a very carefully and tightly laid floor, so constructed that if any mercury (large quantities are employed in gas analysis) be spilled upon the floor, it runs into a receptacle provided for the purpose, and is not lost. The photometric room is designed for photometric, spectroscopic, or other work requiring a dark room; the windows are fitted with blinds, by means of which the room can be rendered perfectly dark, and the walls and ceiling are blackened to prevent reflection from them.

Adjoining the photometric room is the apparatus office, from which students obtain their apparatus, giving the custodian a receipt for it; then comes the "balance-room," and laboratory B, 30 x 42 feet, with desks for thirty "major-course" or second-year students. The desks in this room are similar to but somewhat larger than those in "laboratory A." The private laboratory and office of the sub-director, Dr. H. N. Morse, adjoin, and, with a store-room for chemicals, constitute the remaining rooms upon the first floor.

Upon the second floor is the main "lecture-room A," seating about fifty (27 x 30), behind which is the preparation-room, used in getting ready the lecture experiments. Next to the lecture-room is the library, consisting entirely of works upon chemistry and mineralogy, and containing all the principal journals of these sciences in the world. In the front of the building, and extending across its entire breadth, is "laboratory C," or the "research-room." This is a very handsome room, 16 x 55 feet, with walls of enamelled brick, and is capable of accommodating comfortably about twenty students. It is exclusively occupied by the "Fellows," and other advanced students, who are engaged in original research in the science of chemistry. Adjoining and communicating are the handsome private office and private laboratory of the Director, Prof. Ira Remsen.

The remaining rooms upon this floor are a "balance-room" for the use of the occupants of "laboratory C" and the "combustion-room."

Upon the third floor are "lecture-room B," seating about twenty, employed for special courses of lectures on chemistry, and "lecture-room C," devoted to mineralogy and provided with desks for blowpipe-work; both these rooms have adjoining preparation-rooms. The rest of this floor is taken up with the large "museum" or collection-room, 30 x 55 feet, containing the mineralogical collection and the collection of chemicals used in illustrating the lectures.

Two preparation-rooms communicate with the museum, and are used in preparing specimens of minerals or chemicals to be placed in the collection.

A noticeable feature of all the rooms in the laboratory is the size and number of the windows, and the height of the ceilings, insuring abundance of light and fresh air; the ventilating arrangements are also very perfect and efficient.

The laboratory is very fully provided with all the latest forms of apparatus, and, in short, in completeness and convenience it is probably second to no other in the world.

PHILADELPHIA.

A PORRO OPERATION.—Dr. W. H. Parrish performed a Porro-Müller operation on a dwarf at the Philadelphia

Hospital on June 28th. The case terminated unfavorably on the third day.

BERLIN.

(*From our Special Correspondent.*)

THE HYGIENIC EXHIBITION.—At the opening ceremony of the "Ausstellung für Hygiene und Rettungswessen," which had been so sadly destroyed by fire last year, H. I. H., the Crown Prince of Germany was present in the name of the Empress Augusta, the lady patroness of the exhibition. Surgeon-General W. Roth, of Dresden, is one of the presidents. The enormous exertions of the committee to repair last year's losses have been crowned by full success—thanks to the active support of private individuals as well as of local and State authorities.

The great attraction for members of the profession is the "Pavilion of the Board of Health," representing two laboratories fitted with all implements for researches on infectious diseases and disinfection on the one hand, and on adulteration of food on the other. In the former are seen the different kinds of sterilizing apparatuses, the thermostate after d'Arsonval, and Leitz's microphotographic apparatus. There are exhibited, besides, specimens of all micro-organisms till now bred in pure cultures, from the common penicilium up to the bacilli of anthrax, tuberculosis, and farcy. Here Dr. Robert Koch himself and his assistants are demonstrating in the most liberal manner the principles of their methods as described in the "Communications of the Board of Health." Even quite new, and yet unpublished, results are freely laid before the visitors, for instance the discoveries recently made in the process of *milk-coagulation*, than which none can better, and in a more simple way, illustrate the principles and prospects of pure culture experiments.

It is well known, that sterilized milk in a test-tube, if protected against organic germs by a cotton-wool cover, will rest unchanged for months. The power of coagulation, therefore, must be due to the micro-organisms prevailing in this fluid before sterilization, but it was quite uncertain to which of them this power was to be ascribed. Now, Koch's method has soon settled the question. Pure cultures of the "Oidium lactis" do *not* change the sterilized milk in any way, and not more so a micrococcus very common in ordinary milk. On the contrary, a *bacillus* producing lactic acid by its development, instantaneously effects regular coagulation, another bacillus (producing butyric acid) coagulates more irregularly. This discovery may become a clue for the etiology of infant diarrhœa. The methods for testing water, air, and soil, already described in the *Mittheilungen*, are likewise much improved since, and will soon become equivalent to the merely chemical methods.

A second object, which deserves the full attention and the profound study of all sanitarians, is a collective exhibition of thirty-six town municipalities, showing by maps, drawings, and models, the different sanitary arrangements made in every place, as for sewage, water-supply, school and hospital building, street pavement, etc. The large communities of Berlin, Hamburg, Frankfort, and Vienna, are naturally excelling among their sisters.

The hygiene of prisoners is illustrated by instructive models, contributed by the Prussian Ministry for Justice.

Among the conveyances for the transport of sick and wounded, the Prussian and Bavarian hospital trains are of special importance for our warfaring country. A new hospital tent is exhibited by the Prussian War Department. Prof. Esmarch in his field companion destined for the Serbian army, has adopted the tablet form for the medicaments to be carried in the field.

Mr. Siemens, of Dresden, has erected in the exhibition territory his cremation-stove in full size.

Surgical, optical, physiological, and self-registering meteorological instruments, are abundantly exhibited.

The catalogue of the library contains in the average 2500 books, maps and diagrams, and 180 periodicals; due stress has been laid upon statistics.

In the evenings, the place is illuminated by all different sorts of electric and gaslight.

The whole will be of great benefit for the prosperous development of a science so eminently practical and so much depending upon the intelligent understanding of the population as hygiene.

The exhibition is intended to be kept open until the middle of October.

HARVARD MEDICAL SCHOOL.—At the annual commencement of Harvard University, held on June 27th, the degree of M.D. was conferred on seventy candidates.

THE KENTUCKY SCHOOL OF MEDICINE.—At the Twenty-eighth Annual Commencement of this School held at Louisville, on June 26th, the degree of M.D. was conferred on fifty candidates. The valedictory address was delivered by Prof. J. M. Matthews.

A BANQUET TO PROFESSOR VILLEMIN.—PROF. VERNEUIL, in the belief that during the now prevalent discussions on the question of the communicability of tuberculosis the claims of Prof. Villemin, of the Val-de-Grace, have been too much overlooked, especially by foreigners, organized a protesting banquet at the Café Riche. It was largely attended by members of the Faculté de Médecine and medical officers of the army and navy, and several eloquent addresses were delivered. In the toast of the evening, Prof. Villemin's claims as the discoverer of the inoculability of tubercle by experimental investigations were warmly and successfully vindicated. As might be expected on such an occasion, these claims were carried somewhat too far when it was maintained that all the recent discoveries relating to the parasitic nature of the disease are only the natural and necessary results of Prof. Villemin's and M. Pasteur's researches.—*Medical Times and Gaz.*, June 9, 1883.

ANTIVIVISECTION.—On the 22d of May, while engaged in demonstrating the fact that analgesia without loss of general sensibility could be produced in the larynx, M. BROWN-SÉQUARD was attacked by a young woman, who struck him with her umbrella. Her defence was, that the experimenter intended to cut the vocal cords of the monkey so as to prevent its crying out. This accident has produced a strong "contra-antivivisection" feeling, and on May 31st, M. Brown-Séquard lectured on "The Utility of Vivisection" to a large and enthusiastic mixed audience.

NEW MEDICAL JOURNAL.—*Gazzetta degli Ospitali* announces the appearance of LA CONDOTTA MEDICO-CHIRURGICA ITIALIANA, but neglects to give the place of publication.

SMALLPOX IN BOMBAY, INDIA.—The epidemic declared itself early in January of this year. During the week which ended on the 23d of that month there were 32 deaths from the disease recorded within the municipal limits, and in spite of the efforts of the Health Department to check it, the mortality rose steadily week by week until it reached its maximum of 137 deaths during the week which ended March 6th. The weekly death-list increased from 32 to 71, 88, 94, and 107 to its

maximum. During the week which ended March 13th there were 131 deaths recorded; 123, 93, and 89 in the three following weeks, after which there was an increase to 101. The disease then began to decrease rapidly, the weekly mortality falling from the last-mentioned number to 66, 49, 46, and 21 during the week which ended May 8th. The deaths were scattered over all the districts of the town. With the exception of one or two European sailors, the victims were low-caste Hindus, and to a lesser extent Mahomedans. Smallpox prevails with much virulence at many other points in the Bombay Presidency.

PORRO OPERATION.—DR. BONORA performed the Porro operation for grave pelvic deformity, on May 4. A telegram about ten days afterward stated that the patient was doing well. Pulse 91, temperature 98.6°. The operation was completed in forty-five minutes.

RESISTANCE OF THE BLACK RACE TO SCARLET-FEVER POISON.—Among the *news items* of the issue of this journal for May 19, some figures were given, showing that our colored population do not succumb to the diphtheritic poison so readily as their white brethren. A similar resistance appears to be manifested by them against the allied scarlatinal poison. Statistical returns in this country are somewhat fragmentary; but we succeeded in obtaining the needful data for the year 1881 with respect to fourteen of our towns having mixed populations. They were Wilmington, Del.; District of Columbia, Norfolk and Petersburg, Va.; Wilmington, N.C.; Charleston, S.C.; Atlanta, Ga.; Natchez, Miss.; New Orleans and Shreveport, La.; Nashville and Memphis, Tenn.; Louisville, Ky., and St. Louis, Mo. The mortality returns of several other cities, such as Richmond and Lynchburg, Va., and Savannah and Augusta, Ga., were examined, but they were not embraced in the calculation, as no death from scarlet fever either among the white or colored people appeared on them. These fourteen towns had an aggregate population of 1,156,801, of which 871,886 were whites and 284,915 colored people. The recorded deaths from scarlet fever in this population amounted to 526, of which 85 were deaths of colored and 441 of white persons. Had the colored people died at the rate which prevailed among the whites, 144 deaths would have been recorded instead of 85. In other words, the deaths of the colored people from scarlet fever were to those of the whites as 1 is to 1.7. The figures formerly given as to diphtheria are in the proportion of 1 to 1.5. This smaller death-rate is the more remarkable when we consider the overcrowding and other unsanitary conditions in the habitations of the colored people; their improvidence; the poor nursing given to their sick, and neglect of medical attendance.

HEALTH IN CALIFORNIA.—The *Monthly Circular* for April of the State Health Board gives abstracts of the reports of deaths in twenty-two towns having an aggregate population of 115,980. The reports from San Francisco and Oakland were not received in time for tabulation. The mortality-rate in the twenty-two towns was equal to 14.89 per 1,000 annually. In Sacramento the rate was 15.99. Consumption caused 22.9 per cent. of the total mortality. This is a much larger percentage than is given by the cities in the Eastern States—larger even than the percentage given by the colored people of the Southern towns. But this is owing not to any greater prevalence or mortality of consumption on the Pacific coast, but to the lesser mortality from other diseases. Consumption stands out as a more prominent figure in the mortality lists. Acute pulmonary affections caused 15.3 per cent., and typhoid fever 4.2 per cent. A single death is attributed to diphtheria, reported from Sacramento; one to croup, and one to scarlet fever, both from Los Angeles; two to whooping-cough, one from Sacramento, and the other from Stockton; two to smallpox, from Nevada City, and two to measles in San Bernardino. Smallpox at Napa and Nevada City has been kept under control. This disease has also appeared in a family at Visalia, six cases, one of which was fatal; and in Tulare County, about twelve miles from Visalia, eight cases and one death, all in one family. Preventive measures have been adopted.

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending June 23, 1883, indicate that diarrhœa has considerably increased, that remittent fever, whooping-cough, bronchitis, and cholera morbus have increased, and that measles has decreased in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported present during the week ending June 23d, and since, at thirteen places, scarlet fever at twenty places, and measles at twenty-two places. Smallpox in Kalamazoo Township, June 23d.

OFFICIAL LIST OF CHANGES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JUNE 25 TO JULY 2, 1883.

HEGER, A., *Major and Surgeon.*—Relieved from the further operation of paragraph 9, S. O. 55, c. s., Department of Texas, and will return to his station, Fort Clark, Texas.—*Par. 2, S. O. 69, Department of Texas, June* 25, 1883.

SMART, CHARLES, *Major and Surgeon.*—Assigned to duty in the Office of the Surgeon-General, U. S. Army, and in addition to his duties in the Surgeon-General's Office, will continue to serve as a member of the National Board of Health.—*Par. 8, S. O. 147, A. G. O., June* 27, 1883.

HAVARD, VALERY, *Captain and Assistant Surgeon.*—Assigned to duty with expedition to complete the survey of the country west of the Rio Pecos, Texas.—*Par. 8, S. O. 68, Department of Texas, June* 22, 1883.

WINNE, CHARLES K., *Captain and Assistant Surgeon.*—Assigned to duty as Post Surgeon at Fort Winfield Scott, California.—*Par. 1, S. O. 69, Department of California, June* 19, 1883.

WORTHINGTON, JAMES C., *Captain and Assistant Surgeon.*—Assigned to duty at Cantonment, on the Uncompahgre, Colorado.—*Par. 4, S. O. 128, Department of the Missouri, June* 21, 1883.

EVERTS, EDWARD, *First Lieutenant and Assistant Surgeon.*—Relieved from duty at Fort Coeur d' Alêne, and assigned to duty as Post Surgeon at Fort Lapwai, Idaho.—*S. O. 81, Department of the Columbia, June* 14, 1883.

STRONG, NORTON, *First Lieutenant and Assistant Surgeon.*—Relieved from operation of Par. 2, S. O. 42, c. s., Department of the Platte, and assigned to duty with battalion infantry now on duty between Forts Thornburgh and Bridger, Wyoming.—*Par. 2, S. O. 83, Department of the Platte, June*, 21, 1883.

To be Assistant Surgeons, with the rank of Captain, after five years' service, in accordance with Act of June 23, 1874:

Assistant Surgeon VICTOR BIART, June 6, 1883.
Assistant Surgeon WILLIAM W. GRAY, June 6, 1883.
Assistant Surgeon LOUIS BRECHEMIN, June 6, 1883.
Assistant Surgeon LOUIS A. LA GARDE, June 6, 1883.
Assistant Surgeon JUNIUS L. POWELL, June 6, 1883.
—*A. G. O., June* 25, 1883.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*